MICROTUNNELING, INC.

Working in the Tunneling Industry since 1986

Equipment Sales
Microtunneling / Pipe Jacking Systems
Disc Cutters and Carbide Scrapers
Warman Pumps
Solids Separation Equipment for HDD
Tunnel Guidance Systems

Ancillary Equipment
Microtunneling, Inc. manufactures equipment for tunneling sites worldwide. We manufacturer in the US and in Asia depending on our customer’s requirements. We represent a select few companies who have proven their value to the industry.

Used Equipment Sales
Used Equipment broker, for your used but serviceable equipment

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Microtunneling Short Course
February 2021 in our 28th year
Tunneling Short Course,
in our 15th year
Microtunneling Systems

Slurry – EPB systems
Pipe Jacking - Segmental
600mm thru 3.0m systems

www.RasaTBM.com
Solids Separation

Rock 800- .0m

Hydraulic Cylinders
EPB Machines to 4.0m
Jacking rames
and much more

Rectangular Box EPB 4.0m x 6m

Slurry 1.5 - 4.0m800
Disc Cutters  Carbide Scrapers

Rated #1 in China

Cutters  Scrapers
Standard or
made to order

Shandgong Tianyou Tunnel
Engineering Equipment Company

Manufacturers from all the Big Box Manufacturers buy from us
Slurry Pumps, Rock, Gravels, & Sands

Hebei Tobee Pump Co., Limited.

Ni-Hard, High-Chrome for Slurries and Sands range 1.5x1 thru 16x14

Warman Type Pumps from 1.5x1" to 16x18k"

0HP to 1600HP
Solids Separation

Microtunneling & HDD

Mud Recycling, Pile Driving, Centrifuges, Mixers, Agitators

Smaller HDD Units
Solids Separation

Tanks

8' x 20' shown with 100 HP Pumps
Breathing Air Supply for Compressed Air Headings

Air Receivers

Systems to 1,000 CFM

Air Compressor
Breathing Air Supply

Hospital Grade 'D' Air

Breathing Air Purifier

Electrical Panel 460 VAC & 120 VAC

Power Coated Victaulic Pipe
IIJS, Intermediate Jacking Stations
Systems to 1800 Tons and to 128"OD

81" Steel IJS
IJS, Intermediate Jacking Stations

IJS from 1.0m to 4.0m
Concrete, Polymer Concrete, FRP, Steel Clay

87” Permalok x 800 Ton IJS

1 Steel x 1,000 ton IJS
Telescopic Slurry Tube, inside IJS

IJS with 5” Telescoping Tubes Installed

Flange or Victaulic 4”, 5”, 6” to 12” to 30” Stroke
Skin Ups
from 6" to 128"DD

Skin Up 2.5m, Bolt On

1.3m to 1.7m Up-Skin, Weld Type

Skin Up 2.5m, Bolt On

1.8m Up-Skin, Bolt-On
Hydraulic Jacks, Jacking Frames

250 to 2400 tons
High Head Launch Portal...typical 50ft
Inflatable Seal Scheme, launch retrieval

Air Seal profile, collapsed for 48" + machine OD

Air Seal at 30 psi
Max inflate 100 psi

Air Seal profile, extended for 81" OD Steel Pipe

Seal thickness, reinforced and approximately 1/2"
Inflatable Seal Launch Portal

81" dual launch Portal mounting
TBM High Head Launch, to 24 ft
Water Heads to 100 ft

slide plate

1" lip seal

Machine entry point

inflatable seal

approx 12" diameter
TBM Inflatable Seal Launch

6.7m Launch Seal

Launch and retrieval seals to 8m Diameter
Depths to 50m

Singapore, Shanghai Tunneling
Inflatable Seal for TBM Launch, 20 ft dia.

6.7m machine, inflatable seal
Entrance Ring, Standard
Entrance Ring, Standard

from 18” to 24 feet
Exit Ring, Standard
from 18" to 24 feet

Exit Ring and Seal, 81” OD, Steel Pipe
Pipe Clamp/Brake

2.25m Pipe Clamp / Brake

High Water Head - Pipe Jacking can cause the hydrostatic pressures to push the machine/pipe back into the drive shaft.

The Pipe Clamp/Brake grips the pipe during the retraction of the Main Jacks thus preventing pipe string movement.
Clean Water System

Economical, heavy slurry water cleaning 600 GPM clean water output
Clarifiers & Clean Water

Operates at 600 GPM
Provides Clear/Clean water

Twin Clarifier System for 3.5m MTBM
Slurry Tanks

Made for a Schauenburg Plant

Dual Tank setup for larger plants, twin 100 HP Pumps
Slurry Pumps

Rock, gravels. Sizes suitable for 18" thru 20-30 ft diameter machines

Waran Charge / Discharge Pumps to 20”

5 HP to 150 HP. . . . 2" to 20" pipe

Booster Pumps
Air Blower

Prevents temperature inversions creating steering problems. Provides a source of fresh air for personnel and prevent equipment overheating.

920 CFM Blower
1550³ m/hr x 20.3 cm Hg x 22kW x 8.0” Hg x 30 Hp

Laser distortion can occur

600 CFM or 1020³ m/hr Blower, Pressure or Vacuum
ABIS – Automatic Bentonite Injection System

ABIS

Precisely injects Bentonite along the pipe alignment at 15m to 20m intervals. Valves are remotely controlled by opening/closing in sequence to deliver lubricant evenly within the pipe annuluses while monitoring flow and pressure.

Data Acquisition Systems to 3000ft drives

Typical interior pipe layout

Touch Screen Panel

Control Module, Valve Box

Flow & Pressure Transducer
Grout-Lube Check Valves

fits a 2" NPT Parallel Pipe Nipple embedded in pipe wall
Pin Lube System

Reduces Jacking Loads
Increases Lubricants' Contact Area

The Pin Lube System is a shield body that is placed directly behind the tunneling machine. The protruding adjustable pins create a soil mixing action that used with automated valves allow an exact placement of lubricant.

Creating this lubricant zone as the tunnel excavation is being made ensures no dry spots along the pipe string when coupled with the proper injection of lubricant during pipe jacking.

The PLS valves can be tied into the electrics of the ABIS to provide a complete solution to difficult ground conditions or long drives.
Utility Rings and Lighting Systems
Thrust Rings and Pipe Adapter Rings

Thrust Ring w/Push Ring  800 Ton

Pipe Adapter Ring to 4.0m

Push Ring to 4.0m
Capabilities

If you don’t see it and need it, ask!