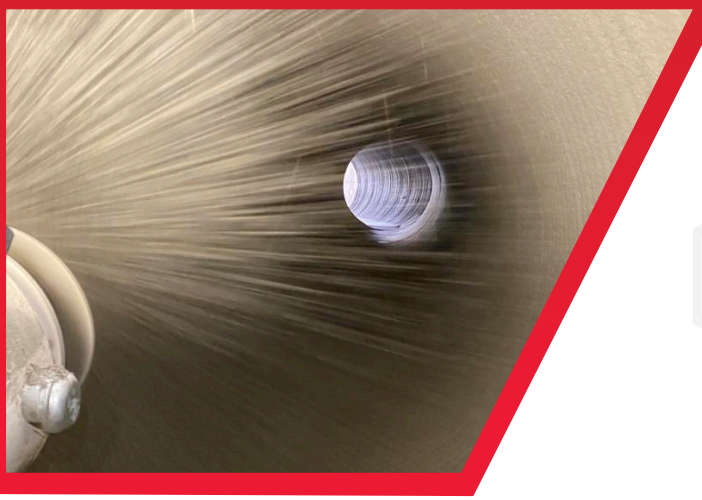


SCAN ME

MICHELS®
TRENCHLESS, INC.

www.Michels.us

TRENCHLESS CONSTRUCTION

Building & maintaining the world under your feet

Being the premier trenchless company in North America and internationally requires a balance of experience and enthusiasm — and an insatiable desire to set the standard for complete infrastructure installation and rehabilitation with minimal surface disruptions.

We have been performing trenchless construction for decades and it shows. Our leaders, managers and field personnel have amassed an extensive resume of successful projects. Regardless of whether we are working close to home or thousands of miles away, our trained crews deliver consistent quality, safety and performance.

New Installation

DIRECT PIPE®

Direct Pipe® combines the best of horizontal directional drilling and microtunneling. After a microtunnel boring machine coupled with the pre-welded and pre-inspected pipe is launched from the surface or a shallow pit, we use tooling to track orientation and location.

- Water crossings
- Levee crossings
- Underground utility crossings

HORIZONTAL DIRECTIONAL DRILLING

Horizontal directional drilling (HDD) is an established trenchless pipe installation technique. We have become a world leader in HDD by designing, building and mastering the use of powerful rigs to place utility lines substantially deeper than conventional trench construction, providing significant cover for crossings under waterways, existing utilities and underground structures.

- Land-to-land crossings
- Land-to-water crossings
- Water-to-water crossings
- Crossings in any ground condition

MICROTUNNELING

Microtunneling is a highly accurate and versatile way to build tunnels upwards of 10 feet in diameter in all soil conditions and in all areas with high ground water conditions using a steerable, remotely controlled boring machine.

- Underground utility crossings
- Challenging soil conditions

TUNNELING

Tunneling is a highly automated process for mining underground passageways in conditions ranging from hard rock to soft water-bearing ground. Our tunnel boring machines (TBMs) are customized for unique project requirements.

- Earth pressure balance TBM
- Open face TBM
- Slurry TBM
- Hard rock TBM
- Roadheader/digger shield
- Geodetic surveying
- Shafts and mass excavations
- Drill and blast services

PIPE ASSIST

Pipe Assist uses a Direct Pipe® thruster with up to 750 tons of force to support during pullback of a large, heavy pipe string. The thruster is fitted concentrically around the pipe, ready to be quickly engaged.

- Locked pipes
- Immobilized pipes
- Pipes needing assistance to avoid being damaged

AUGER BORING

Auger boring allows a casing pipe to be jacked into place under railroads, roads, runways, property, other utilities or environmentally sensitive areas. Highly technical variables allow auger boring to be completed within line and grade industry tolerances in a variety of soil conditions.

- Water
- Storm drain
- Sewer
- Electrical

Rehabilitation

CURED-IN-PLACE PIPE

Cured-in-place pipe lining (CIPP) is an established, yet evolving technique for installing a fully structural pipe within an existing pipe to add an additional 50 years to its design life. Resin-impregnated liners are inserted into a pipe and cured by water, steam or ultraviolet (UV) light.

- Sanitary & storm sewers
- Force mains
- Pressure pipes
- Potable water pipes (NSF 61-approved)
- Laterals and culverts
- Short liners

SPRAY-IN-PLACE PIPE

Spray-in-place pipe lining (SIPP) is a versatile method for extending the life of deteriorating pipes and structures of many shapes and sizes. Depending on the situation, cement mortar, epoxies, geopolymers and polyureas are applied by mechanical spinning or hand spraying. Suitable for brick, concrete, and corrugated and smooth metal surfaces.

- Utility manholes
- Sewer mains
- Potable water pipes (NSF 61-approved)
- Raw water pipes
- Culverts
- Irregular shapes and bends

SLIPLINING

Sliplining is a long-standing, fully structural way to rehabilitate pipes by creating a pipe within a pipe. A new sewer pipe is pushed or pulled into an existing, deteriorating pipe. Then, the annular space is chemically filled and the ends are sealed.

- Sanitary sewers
- Storm sewers
- Laterals
- Culverts

PIPE BURSTING

With pipe bursting, an expander is hydraulically guided through an existing pipe, breaking it and allowing for a new, larger pipe to get pulled into its place. One of the most unique elements of pipe bursting is its ability for inline expansion without removal or excavation.

- Cast iron pipe
- HDPE pipe
- Steel pipe

CHEMICAL GROUTING

Installing chemical grout in voids and soil outside of pipes and structures stabilizes pipes and eliminates infiltration. When used in conjunction with other pipe rehabilitation methods, it reduces inflow and infiltration rather than relocating it.

- Sewer mains
- Laterals
- Utility manholes

CLOSED-CIRCUIT TELEVISION & SEWER CLEANING

Routine sewer cleaning and closed-circuit TV (CCTV) inspections are part of everyday sewer maintenance. Wastewater recycling sewer cleaning trucks pressure wash pipes to prepare for inspection and rehab processes.

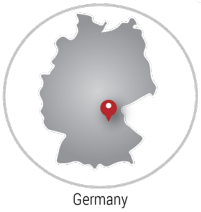
Local. **Everywhere.**

Tualatin, OR
Microtunneling

- 500-foot drive
- 82-inch reinforced concrete pipe
- 40 feet under the Tualatin River
- 650-foot U-shaped curve
- North American record for tightest vertical curve

Pennsylvania
Direct Pipe

- 650-foot drive under the Juniata River
- 48-inch steel pipe
- Entry angle at 4 degrees, exit at 5 degrees



North Carolina
Sprayed-in-Place Pipe

- 16,000-foot cleaning and rehabilitation
- 6-inch and 8-inch water mains
- 34,000 feet of temporary bypass piping

Guam
Cured-in-Place Pipe

- 43,984 linear feet sanitary sewers
- 18- to 42-inch liners
- 141 utility manholes
- Trenchless Technology Project of the Year

San Francisco Bay Tunneling

- 5-mile tunnel under San Francisco Bay
- 12-foot concrete-lined tunnel
- 9-foot steel pipeline installed inside tunnel
- Tunnel Achievement Award for Project of Excellence

Williston County, ND
Horizontal Directional Drilling

- 13,247-foot drill
- 20-inch steel pipe
- 268 feet below bottom of lake
- Pilot hole intersect method
- Trenchless Technology Project of the Year

An overview of the collective strength of the MICHELS® Family of Companies

8,000 people strong

17,000 pieces of equipment

1959
founded in

50+ offices globally

Top 7%
ENR's Top 400 Contractor's List

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