



*Products in Action:
Microtrenching*

What is microtrenching?



- Cutting asphalt or concrete
- Narrow
 - Generally 10-40mm wide (0.375"-1.5")
- Shallow
 - Below the upper layer
 - Shallower than most utilities
 - 10-40cm (4"-16") typically
- Primarily used to install duct for fiber
- Uses vac system for optimal results
- "Nanotrenching"10mm x 100mm (0.375" x 4") ...or smaller!....



Why use microtrenching?

- Speed
 - Up to 12 meters (40') per minute
- Less disruptive
 - Less dust / debris (vs saws)
 - Not on private property
- Location
 - Avoids crowded easements
- Safety
 - Distance from existing utilities can reduce chance of utility strikes
- Labor
 - Less training required (vs HDD)
- Can be less expensive
 - For all the reasons above



Financial Considerations

- **Equipment**
 - Primary & support products, trucks, trailers
- **Manpower**
 - Direct, indirect, benefits, training, recruiting
- **Consumables**
 - Conduit, junctions, fill, sealant, fuel, fiber
- **Wear Items**
 - Blades, filters, core bits
- **Productivity**
 - Hours of operation, speed, soil conditions
- **Reinstatement**
 - Spoils disposal, lawn/sod, asphalt/concrete finish

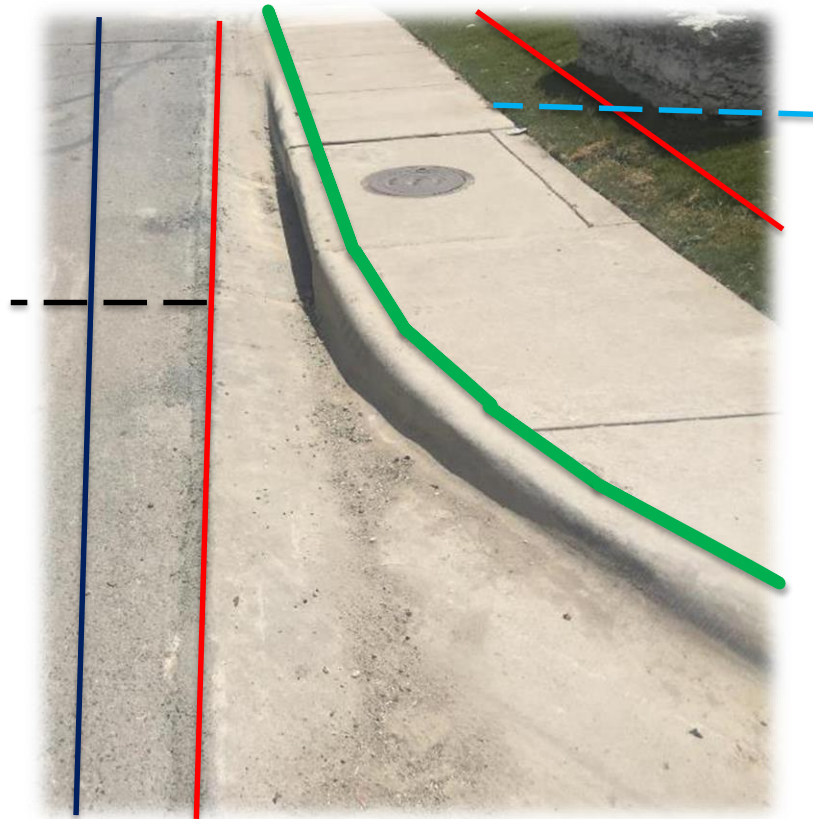
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Contact an experienced local equipment dealer for help building a complete analysis.

Microtrench Jobsite Variables

- Design
- Location
- Product
- Dimensions
- Reinstatement
- Other

Every job is different...



Microtrenching Requires A System!



Microtrenching Residential Areas

DROP TO THE HOME



REINSTATEMENT



STREET CROSSING



LOCATING & EXPOSING



LOCAL STREET



COLLECTOR/ PRIMARY STREET



Utility Location and Exposure



Mainline Microtrencher

- Depth 0-40cm (0"-16")
- Width 10-50mm (0.375"- 2.0")
- Traversing offset
- Tilts & Swings
- Floating housing follows ground contour with constant pressure





Residential Microtrencher

- Depth 0-40cm (0-12")
- Width 10-40mm (.375"-1.50")
- Tilts & Swings
- Traversing offset
- Standard or High-Speed Motor options

Sidewalk or Behind-the-Curb



- Extended offset

Street Crossings




DIRECTION OF
MOVEMENT

- “Push or Pull”
- Width 10-40mm (.375”-1.50”)
- Depth 10-23cm (0”-9”)



DIRECTION OF
ROTATION


Vacuum Excavator

- Used for pre-job “potholing” and to remove microtrencher spoils during cutting process
- 1000 CFM min recommended
- 800 gal recommended
- Cyclonic filter required
- Use of a vac is always recommended



Concrete Mixer

- Auger driven mixer
- 380L (100 gal or ¼ yard) mixing tank
- Mix, fill and level in one pass
- Hydraulic hopper
- Adjustable vibrating chute
- Any flowable fill



Training and Support



Microtrenching Job Photos: Austin, Texas



Results



Microtrenching Today

- Currently educating versus traditional methods
- Gaining acceptance by DOT's and municipalities

