

[Dig This: Soil Types & Tools From MiniTrencher](#)

The logo for "Turf" features the word in a bold, black, sans-serif font. A stylized green grass blade is integrated into the letter 'u'.The logo for "Tree Services" is in a bold, black, sans-serif font. A small green leaf icon is positioned above the 'e' in "Services". Below the main text, the tagline "Taking Tree Care to New Heights" is written in a smaller, italicized font.The logo for "Turf DesignBuild" features the word "Turf" in a small, orange, sans-serif font above the word "Design". "Design" is in a black, sans-serif font, and "Build" is in a large, bold, orange, sans-serif font.The logo for "PLOW" is in a bold, blue, sans-serif font. The letters are slightly slanted to the right.

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Let's face it, some of us love playing in dirt so much we've shaped our careers around it. We use trenchers when we can and pick up our trusty shovels when we must. Narrow, hard-to-reach areas and sloped grades have typically been reserved for hand tools. But do you dread picking up that shovel? As a minitrencher manufacturer we have heard all the stories. Everyone has their own way of trenching; some more creative than others.

Pick Your Digging Tool

Tools need to be efficient, reliable, and cost effective. What is "cost effective?" Does it relate to the sales price or long-term cost savings? Is it dependable? Does it need equipment to transport? Does it reduce labor costs?

	Long Term Cost Savings	Pricing	Easy Transportation
Landscaping and Irrigation Rotary Trenchers	✓	\$\$	
Walk Behind Trenchers	✓	\$\$\$	
Portable MiniTrenchers (GeoRipper)	✓	\$\$	✓
Hand Tools (Shovels, Picks, Etc.)		\$	✓

These are all important things to look at when buying new equipment. There are a ton of tools that can dig, claiming to be the best, and it's easy to get overwhelmed with all the options. The first step is to define what type of soil you have.

Soil Variations

- **Caliche** is a hardpan soil found in the arid Southwest. It is impervious. This means air, water, and roots barely move through it.

Digging in it: Most rely on heavier equipment like walk behind trenchers and hand digging tools (digging fork, spade, or broad fork). Newer minitrenchers have proven to be an effective and efficient alternative when you cannot get your heavier trencher in. Keep in mind, there is more wear and tear on equipment when digging in hardpan soils.

- **Fragipan (or Shale)** consists of a layer of dense, compacted, cement silt and fine sand. It is impervious and hard when dry, but brittle and fragile when wet. It can be deceiving but once you start digging, it becomes easier if you have the right tools.

Digging in it: Walk behind trenchers are typically used, along with hand tools to break up the top layer. Use of a minitrencher is becoming common, since it is more of a hard, fragile top layer. Keep in mind, there will be more wear and tear on equipment in these soils.

- **Rocky soils.** There are rocky soils and then there are "rocky soils". Depending on where you are, this soil may be loaded with rocks or boulders with a sprinkling of dirt.

Digging in it: If you have smaller rocks (the size of your fist or smaller) walk behind trenchers, rotary trenchers, and minitrenchers work. You may need to buy different teeth for your rotary trencher, and it will cause wear and tear on walk behind and minitrenchers. It is important to remember, trenchers

are not meant to crush rocks, unless you are dealing with large equipment. Most trenchers will pull up rocks, but if your rocks are bigger than your trench, you will need to go back and manually remove the rock; which means, you may have to hold onto some of your hand tools.

If you have large boulders you will be looking at bigger equipment and jack hammers.

- **Sandy soils** aren't about what can dig in it, as much as how stable it is. You will want to consider how wide is the disbursement, so your trench won't collapse.

Digging in it: The possibilities are endless – make sure that you have soil stability and a good ratio for disbursement. Fine sands, like sugar sand, may need multiple passes with the spoils discharged on each side of the trench to avoid fall-back.

- **Loamy soils** are the mutt of soils, consisting of a mixture of sand, silt, and clay. You typically find loamy soils in areas where farming is more prevalent, especially if it has a higher silt base.

Digging in it: You can dig through loamy soils easily. Most likely, you will have a combination of tools, including hand tools for those hard to reach, narrow areas. With technology advancing, you can also use a handheld minitrencher instead of a shovel to save time.

Minitrenchers



Minitrenchers are becoming common in the industry. They can get the job done quickly to reduce labor costs and increase profits. Handheld trenchers provide an alternative to trenching and are good for: irrigation, low-voltage lighting, fencing, edging, erosion control, and root barrier, to name a few. Contractors, like Rodney Krumnow in Texas, state, "I had a hard time believing it would make that much of a difference. I bought one. Best decision ever. We now have two of them and keep them ready to go."

GeoRipper from MiniTrencher can create a trench suitable for up to 2" pipe as deep as 24" below grade; three times faster than hand digging. With a starting weight of 32 lbs, it can be used by hand or with EZ Kart for longer runs. Available in three engine options – Series 6, Series 7, and Series 8, the belt-driven engine and self-sharpening chains dig through dirt, clay, roots, and rocky soil. For more information, click [here](#).