

Supersonic Airtool and Vacuum Excavation

Non-invasive trenching and pot-holing using a soil vacuum allows arborists to excavate soil to depths of eight to ten feet when necessary. More often, this equipment is used to reach depths of two to four feet, essentially reaching below the depths of most root systems. In these situations it is possible to actually feed smaller utility conduit pipes or other lines beneath the roots, causing minimal damage while ensuring proper routing of these lines. Trenching also comes in handy for installing irrigation or lighting systems without damaging roots.

Root pruning with this technology allows arborists to root prune trees even in the most choked or cluttered urban environments. With infill and urban redevelopment, root pruning around existing utilities, irrigation or other obstacles virtually eliminates traditional mechanical trenching methods. Supersonic Air Tools (SSAT) and Soil Vacuum Trenching (SVT) allow for a new and better option.

Soil mixing is an option for compacted and/or denuded soils that uses SSAT technology to mitigate and mix damaged soils with compost. Using the SSAT to first loosen the soil, the arborist then mixes in compost to a depth of 12 to 18 inches to provide the soil with organic content. This helps to increase porosity and create a better environment for tree roots and soil microorganisms.

Subsurface utility locating and test pitting is an additional service that can be provided with this combination of equipment. When exact locations of utilities or other underground features need to be found, The Care of Trees can offer clients the ability to excavate in a safe manner without the use of heavy machinery or hand digging.



(top to bottom) Technicians use the supersonic air tool to excavate soil without damaging the root system; the trenching procedure in progress; none of the roots are damaged after.

