

The Soil Pick

Damage Prevention Advancements

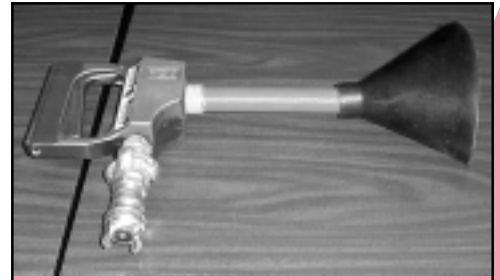
One of the biggest problems faced by excavators and facility operators today is how to safely and efficiently verify the location of underground facilities in the "Tolerance Zone". In an effort to improve their underground facility verification methods, NYSEG has investigated the idea of utilizing a Soil Pick. Recently, Len Perfetti of NYSEG arranged a "Soil Pick" demonstration at their Horseheads facility. Several NYSEG employees and Michele Alberico of Dig Safely New York attended the demonstration. Representatives from MBW, Inc. manufacturer of the Soil Pick were also on site and presented the pros and cons of the equipment as well as performed the hands on demonstration.

By now, you're probably wondering, what is a soil pick?

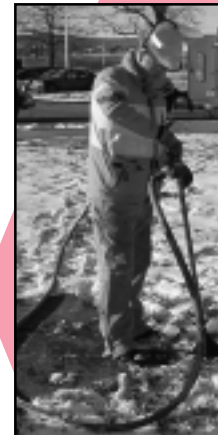
The **Soil Pick** is a selective soil excavator. Selective in the sense that it fractures, pulverizes and displaces porous and semi-porous soils at a high rate of speed, yet leaves non-porous objects unaffected. The Soil Pick excavates soil without risk of damaging buried utilities. The Soil Pick employs converging/diverging nozzle technology to accelerate compressed air to supersonic speed (to 1500 mph). The high velocity air stream travels approximately 4 inches from the distal end of the Soil Pick - "the cutting edge" - before decompressing to atmospheric pressure with sufficient violence to pulverize and displace soil.

What separates the MBW Soil Pick from other excavation tools employing converging/diverging nozzle technology? The answer is safety. MBW holds US and International patents on the combination of dielectric and non-sparking characteristics embodied in the Soil Pick. Non-conductive, non-sparking tools are of obvious benefit to those working in environments that may be gas enriched and/or are in close proximity to live electric lines. The length of a supersonic excavator's "cutting edge" can be shortened or lengthened by changing the configuration of the tool's converging/diverging nozzle. For reasons of safety, MBW has chosen to standardize its cutting edge at approximately 4 inches. A 4" cutting edge is long enough to facilitate rapid excavation, yet short enough to minimize the potential for personal injury caused by misuse or misdirection of the cutting edge. Loosening of soil beyond the area of intended excavation is minimized. Scatter of soil particles, rock and pavement debris is minimized, and the operator is better able to control the air stream when excavating in the immediate area of a gas leak.

Dig Safely New York is not endorsing the Soil Pick or any other products. We are simply attempting to make excavators aware of products that may advance underground damage prevention.



The Soil Pick: *The length of the Soil Pick depicted in the picture above is shorter than its usual working length. To get an idea of actual length see pictures below.*



The Soil Pick being demonstrated by MBW.



The benefits of the Soil Pick are discussed outside the NYSEG facility located in Horseheads, NY.