



Pneumatic Pipe Bursting

In the pneumatic system, the bursting tool is a soil displacement hammer driven by compressed air and operated at a rate of 180 to 580 blows /minute. An expander is fitted to either the front or near the rear of the pneumatic soil displacement hammer. The pneumatic hammer assembly is launched into the host pipe via an insertion pit. The tool is connected to a constant tension winch located at the next excavation or manhole location. The constant tension of the winch keeps the tool and expander centered within the host pipe and when combined with the percussive power of the hammer helps maintain line supply line inside the new pipe. The winch is positioned at the pulling shaft. The percussive action of the hammering cone-shaped head is similar to hammering a nail into the wall; each hammer pushes the nail a short distance. It cracks and breaks the existing pipe, with each stroke. The expander on the head combined with the percussive action push the fragments and the surrounding soil away providing space for the new pipe. Reversible tools are available that allow the pneumatic hammer to back itself out through the installed pipe saving the expense of a reception pit. Once started, the burst continues to the destination manhole where the tool/expander assembly is retrieved from the reception pit. The process continues with little operator intervention until the head reaches the pulling shaft at which point it is separated from the new pipe. Pneumatic pipe bursting is limited to fracturable host pipe and limited to installing HDPE new product pipe.