

Pipe Ramming Services

Fact Sheet

Clean Harbors Pipe Ramming Services utilize pneumatic powered tools to drive a steel pipe horizontally into the ground. The front end of the pipe is left open allowing soil to enter the pipe. After installation is completed, the soil is removed by doubling up the casing or auguring out.

Applications of pipe ramming include -

Conductor Barrel Process - Creates a clear path through poor soil conditions so drilling can begin in more favorable conditions. The process involves ramming casings into the ground at a predetermined angle until desirable soil conditions are met. The spoil is then removed with an auger attached to a drilling rig. Conductor barrel process can also be used to create a friction-free section during pullback. Conductor barrels are excellent for watercourse crossing as they can prevent drilling fluids under pressure from forcing their way into the waterway.

Pipe Extraction/Drill Stem Recovery - Removes existing pipelines that are too shallow in creeks or slated to be abandoned, as well as recovers stuck drill stems and product pipe. The impact force of a rammer is combined with static pull back to extract the pipe.

Pull Back Assist - Frees up hydrolocked or stuck pipe. During pull back, a rammer is attached to the product pipe and hammer impact force helps free up hydrolocked or stuck pipe. This technique has been successfully used on steel pipe and HDPE pipe.

How Pipe Ramming Works

- The rammer and first pipe section are lowered into the starting pit and placed on a fabricated launch platform.
- The tool is firmly secured to the pipe ensuring that full impact is transmitted to the pipe.
- The rammer is connected to a conventional air compressor and the section is driven—similar to driving a stake with a sledge hammer.
- Once the pipe section is rammed into place, the rammer is reversed out of the collets, the collets are removed, and a second section of pipe is welded squarely into place and rammed in. The process is continued until the bore is complete.
- Soil that has accumulated within the pipe is removed by using an auger or pressure plate through which compressed air or water can be fed, forcing soil out and leaving a cleanly installed steel casing, ready to house services.



FEATURES

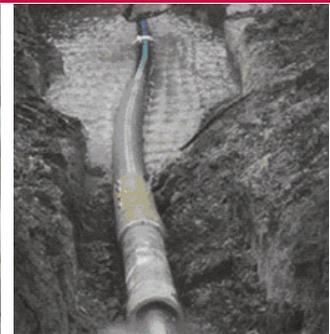
Why use Pipe Ramming?

- Compared to conventional methods for placing steel casing for underground crossings, pipe ramming reduces set-up time and lowers equipment and maintenance costs.
- When auguring in cobble, an auger bore requires casing diameter three times the size of the average size rock to pull the material out of the casing. Pipe ramming can swallow the material whole, keeping casing size to a minimum and saving costs on the job.
- When auguring in sand, there is a risk that too much material is augured out in front of the casing and a void is created. With pipe ramming, the material is not removed until after the casing is installed.

Hammers are available in 12", 16", and 20" diameters.



Conductor Barrel



Pull Back Assist

