

Dual-Pipeline Pullback

Dual-pipeline pullbacks have been safely and effectively used for decades in a wide range of infrastructure projects, including water, sewer and energy pipelines, and other underground utilities.

The process for installing and pulling back two pipelines using the horizontal directional drilling (HDD) method is the same as that used for the installation and pullback of a single pipe.

The construction contractors on the Mariner East 2 pipeline project have a lot of experience with this construction method. They have successfully executed dual-pipeline pullbacks here in Pennsylvania, as well as on other projects across North America in places such as Connecticut, Indiana, Louisiana, Michigan, New Jersey, Oregon and Wisconsin, and in Alberta and British Columbia, Canada. Energy Transfer has also done dual-pipeline pullbacks on other projects in Pennsylvania.

The same methodology can be used to pull more than two pipes at once. Recently, 12 steel pipelines were bundled in groups of four and pulled together through three 3,100-foot crossings under a shipping channel in Corpus Christi, Texas.

Horizontal Directional Drilling

HDD is a steerable, trenchless method of installing underground pipe in an arc along a prescribed bore path. This construction method is used to install pipelines underneath waterways, wetlands, culturally sensitive areas, congested neighborhoods and roads. The use of this method minimizes surface disturbance and reduces environmental impact during construction.

Using HDD to Install Pipelines

Installation of a pipeline by HDD is generally accomplished in three stages. The first consists of directionally drilling a small-diameter pilot hole along a designed directional path. The second involves enlarging this pilot hole to a diameter suitable for installation of the pipeline. This is called the reaming phase. While the pilot hole is being drilled and enlarged to the appropriate diameter, skilled and trained pipeliners string, or lay out, the pipe to weld the pipe sections together. After the hole is reamed to the appropriate size, the welded pipeline is installed by connecting it to a swivel and pulling the pipe back through the enlarged hole.

HORIZONTAL DIRECTIONAL DRILLING IS ALSO USED FOR:



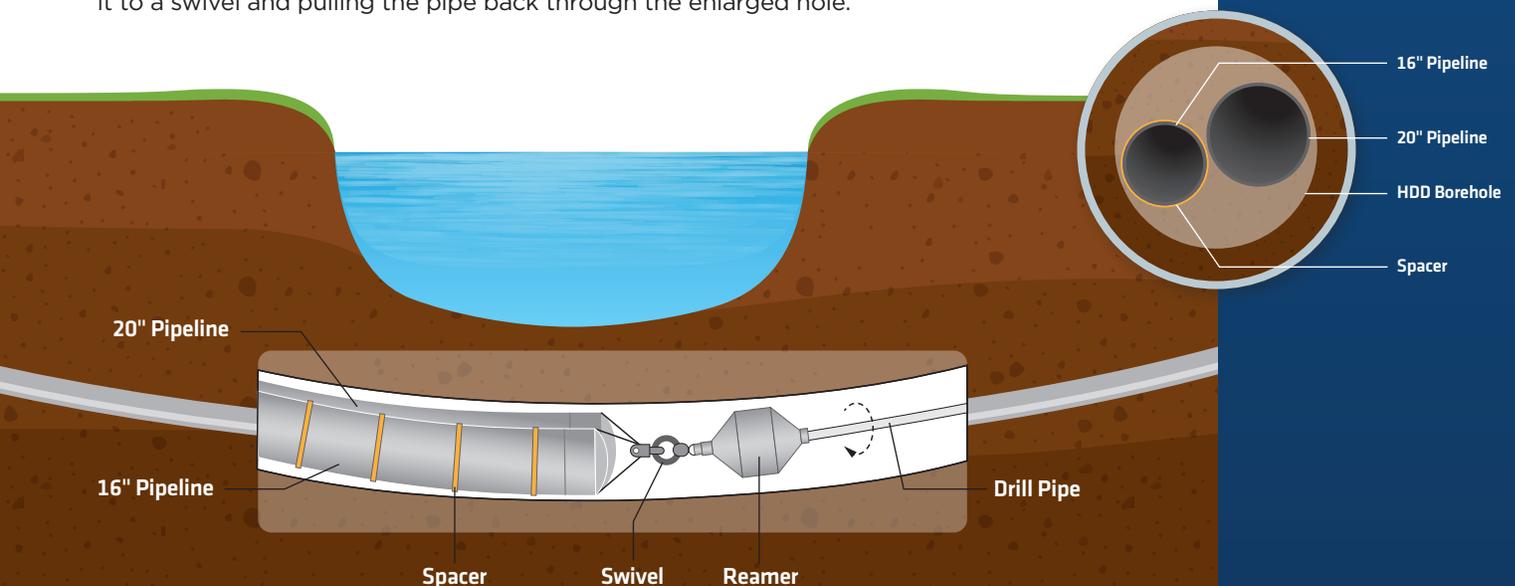
MUNICIPAL WATER AND WASTEWATER PIPES



FIBER OPTIC AND TELECOM CABLES



POWER CABLE CONDUITS



Safely Installing Two Pipelines

Dual-pipeline pullback is a common practice during HDD installation for many types of utilities, including water and sewer lines. It enables safe installation of multiple pipelines at once by joining them on a common pulling head and installing them as a bundle. In fact, more than four pipelines can be pulled together at once, depending on the size of the pipes and local geology.

The benefits of dual-pipeline pullback include less disturbance to the surrounding geology with fewer separate bore holes, and less disturbance to nearby communities by shortening construction time.

Spacing Between Pipes

During a dual-pipeline pullback, companies may use spacers (such as clock springs) to separate the pipes to prevent metal-to-metal contact. There are no regulations or requirements for a pipeline operator to use spacers or to maintain separation of space between its own assets. This is an extra safety protection we deploy during a dual pullback.

Separately, there is a spacing regulation for pipelines crossing a different company's infrastructure. **The Pipeline and Hazardous Materials Safety Administration (PHMSA) regulation 49 CFR § 195.250 says:**

“Any pipe installed underground must have at least 12 inches (305 millimeters) of clearance between the outside of the pipe and the extremity of any other underground structure, except that for drainage tile the minimum clearance may be less than 12 inches (305 millimeters) but not less than 2 inches (51 millimeters). However, where 12 inches (305 millimeters) of clearance is impracticable, the clearance may be reduced if adequate provisions are made for corrosion control.”

The purpose of the regulation is to ensure there is no cross-bonding of cathodic protection between systems from different companies. This spacing does not apply to dual-pipeline pullbacks. It is therefore also not a requirement for the dual pullback of the Mariner East pipes.



Information and Inquiries

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