

# QUESTION...

Do you have a long shot to complete and favor a method that shortens the length of the bore?

Do you have a job that involves a product being installed under a waterway or wetland?

Do you have a job that using drilling fluids is not an option?

Do you have a job that sit in an environmentally sensitive area?

Do you have a job that requires a small footprint or that's in a remote area?

Do you currently have a job with issues with inadvertent returns?

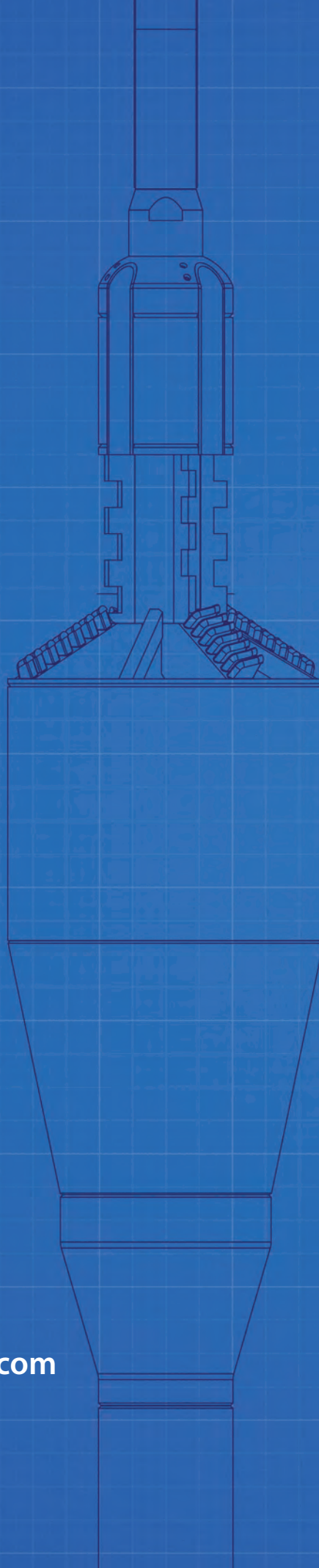
Are the cost of cuttings removal causing your job expenses to skyrocket?

**Then the FlexBor system  
is what you need!**

*Method & Equipment Patent Pending*

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# **Barbco** INC.

Making Ordinary Auger Boring  
**Extraordinary**

Introducing

# **FLEXBOR**

A COST-EFFECTIVE, ENVIRONMENTALLY-SAFE TRENCHLESS METHOD AND TOOLING



**MADE IN USA**

## What it is...

The FlexBor system is a hybrid tool and method of horizontal directional drilling and auger boring. This product eliminates many of the concerns and/or deficiencies of those methods individually.

The FlexBor is designed to virtually eliminate “frac-outs”/“inadvertent returns” that are often associated with horizontal directional drilling. In addition, the FlexBor reduces costs with time and expenses in most cases, by requiring one head to create the needed hole diameter and often shortening the length needed to install the product. The use of augers within allows for the cuttings to be removed mechanically and controlled with the assistance of air and/or water. The cuttings and down hole pressures are retained in casing while being carried to the surface.

## Why it is needed...

With traditional trenchless installation’s there are often problems and concerns related to the environmental disruptions caused during drilling/boring (i.e. inadvertent release of drilling fluids into wetlands or inability to auger bore due to terrain). In addition, traditional methods such as horizontal directional drilling that is used to install a product with a required bend radius; length of drill can be vast in order to achieve such radius and with traditional auger boring, these bores are straight and provide installation for short distances only.

Use of the FlexBor system is a proven resolution to most if not all of the previously mentioned problems/concerns with trenchless installation. The FlexBor system utilizes casing to hold the cuttings and pressures created during the process, inadvertent return concerns are eliminated. In addition, minimum cover can be obtained in wetlands, streams, etc. Therefore the length of drills can be reduced as the FlexBor system can achieve the same bend radius with shortened distance and depth of drill. Finally, the FlexBor system’s hybrid combination that includes a section of augers which allows for the minimal depths associated with an auger machine, but allows for a radius in the bore path.

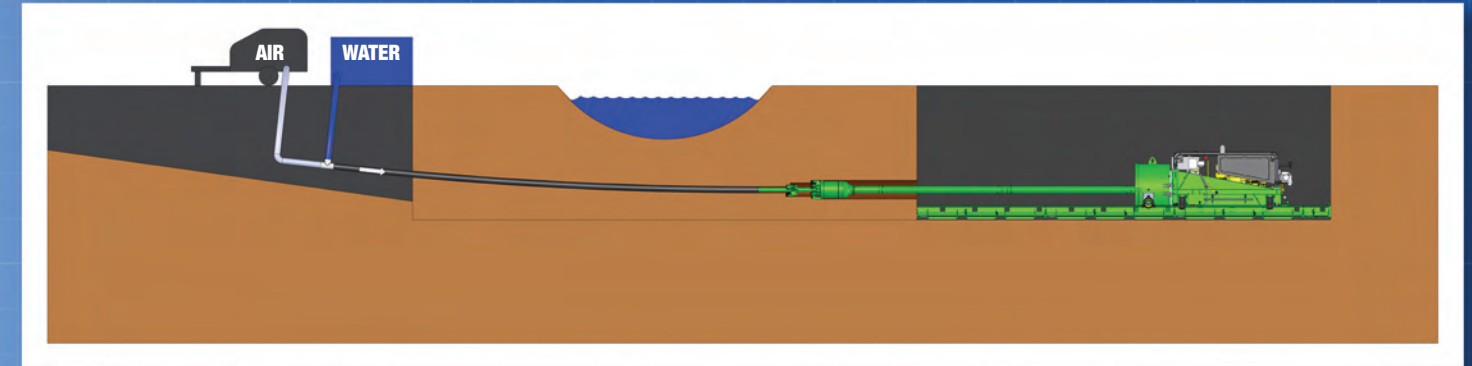
The FlexBor system provides a cost effective, environmentally conscious, and overall increased flexibility in trenchless product installation. The FlexBor system’s ability to reduce length and depth of drills, protects the environment from frac-outs/inadvertent returns, ease of use in remote locations with minimal amount of water required, and its ability to be utilized with a variety of drill/boring machines make it a preferred system for trenchless product installation.

## How it works...

The pilot hole is obtained using conventional methods (i.e. utilizing a horizontal directional drill). Once the pilot is complete, the drill head is removed and the FlexBor head is connected to the drill string and airflow is introduced through the drill string to the FlexBor tool from the exit side. As the FlexBor tool is rotating, and cutting the hole, the cuttings are forced into the head where the augers pick up the cuttings and advance them into the casing. At the end of the augers, air flow picks up the cuttings and carries them to the surface through the casing. The FlexBor head is advance forward by use of an auger boring machine from the entry side and the casing and head are rotated simultaneously around the auger assembly as the built-in swivel keeps the auger and pilot from rotating which mixes and forces the cutting into the air chamber.

## STATIC TYPE

THIS TOOL ALLOWS FOR SHALLOW BORING DEPTHS WITH MINIMAL COVERAGE AS THE DRIVE CASING IS ALSO THE SPOIL CARRIER TYPICAL OF TRADITIONAL CASED BORES.



## AUGER TYPE

SOME OF THE LARGER FLEXBOR TOOLS CONTAIN AN AUGER. 100% OF THE BORING MACHINES ROTARY TORQUE CAN BE APPLIED TO ROTATE THE TOOL AROUND ITS INTERNAL AUGER TO AID IN CONVEYING THE SPOIL INTO THE DRIVE CASING.

