

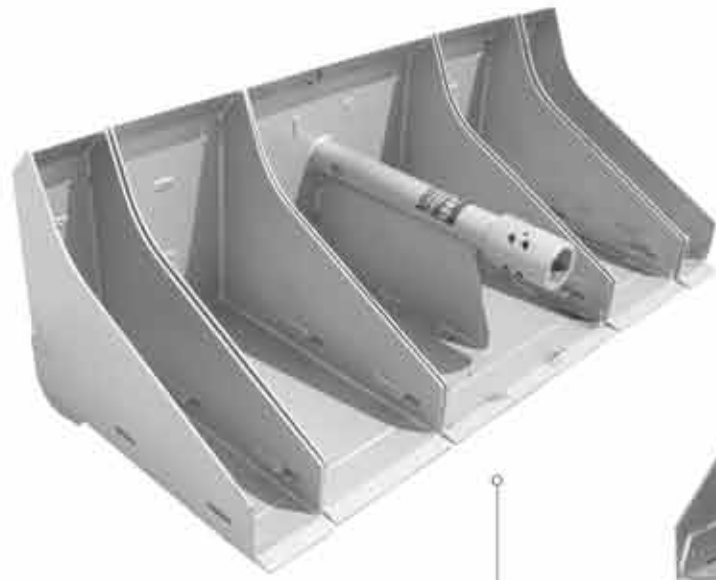
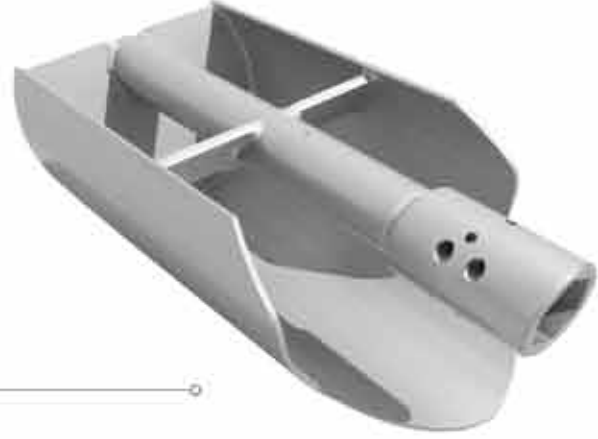


UNIVERSAL

HORIZONTAL DIRECTIONAL DRILLING



UNIVERSAL HARR

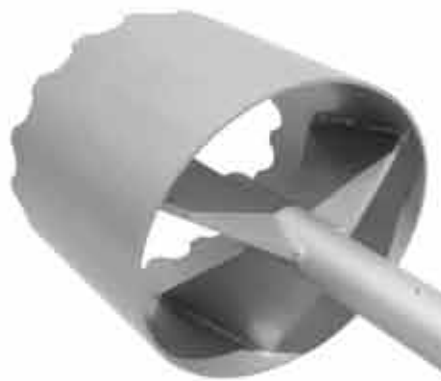


Pull Bucket
Designed to pull material back towards to operator.

Push Bucket
Designed to push material out the far end of the culvert. It can also function as a scoop removing material bucket full at a time.

Barrel Reamer
Designed to loosen and remove heavy material located in the culvert.

Brush
Designed to fine clean a culvert.



With the awareness of environmental hazards detailed by federal and local regulations, it is important that drainage structures are properly maintained. In the past these structures have not been given the attention they deserve. Many culverts in the U.S. have never been cleaned which has resulted in damages to the structures themselves, roads, ditches, personal property and even people. One of the main reasons organizations have not maintained their structures is due to the lack of efficient and effective culvert cleaning methods. Open cutting a road, better trucks, backhoes and cables are all methods that have been used to clean culverts in the past. Each of these methods have their shortcomings.

Harr's patented method have overcome these failures of other methods and has introduced an efficient and effective way to clean clogged culverts. The following are benefits of this method:

Benefits

Containment of Debris
Using a directional drill gives the operator complete control of the debris within a culvert. With controlled pullback and thrust speeds the operator can remove as little or as much material as they want at a controlled speed. This will allow for the material to be shovelled, excavated or vacuumed as it is being removed from the culvert. Using a pull bucket or push bucket, material can be removed from either end of a culvert.

Versatile
Using a directional drill culverts of any size, shape and material can be cleaned effectively.

Containment of Debris
Using a directional drill gives the operator complete control of the debris within a culvert. With controlled pullback and thrust speeds the operator can remove as little or as much material as they want at a controlled speed. This will allow for the material to be shovelled, excavated or vacuumed as it is being removed from the culvert. Using a pull bucket or push bucket, material can be removed from either end of a culvert.

Reduced Water Usage
When using a better truck, potentially thousands of gallons of water can be used to effectively clean a culvert. Harr's method will use a fraction of that. For example, a 60' culvert with a diameter of 24" that is 100% full can be cleaned using between 100-250 gallons of water. Using Harr's method the water usage and pressure are controlled by the drill operator. The water is pumped through the drill stem to the culvert cleaning attachments.

Structurally Safe
The culvert cleaning tools are built out of a mild steel that will not damage the interior of the culvert. Using a directional drill allows the operator to control the rotation of the tools. This is very important especially when a failure or void is encountered. With total control the operator will be able to back out the tool to determine where the failure is.





Universal HDD believes the specifications in this brochure to be correct at the time of printing. However, specifications, standard equipment, options and dimensions are subject to change without notice. Some equipment may be unavailable when your machine is built. Please ask your adviser for list concerning current availability of standard and optional equipment and tooling, and verify that your machine will include the equipment you ordered. Machines in this brochure are shown with optional equipment. While Universal HDD makes diligent efforts to provide accurate information in this brochure, there is no guarantee or warranty of accuracy. This brochure shall not be used or relied upon as substitute for information that is available from your Universal HDD center. Further information can be obtained from your authorized Universal HDD dealer or www.unihdd.com.



Address: Universal HDD
1221 Flex Court,
Lake Zurich, IL 60047, USA

Tel: (847)955-0050
Fax: (847)955-0055
Email: info@unihdd.com
Web: www.unihdd.com

To find the dealer nearest you, visit www.unihdd.com