

## **The significance of using horizontal directional drilling in utility services**

### **ABSTRACT**

Horizontal directional drilling (HDD) was established for the installation of pipes, conduits, and cables. The HDD industry is divided into three major sectors: large-diameter HDD (Maxi-HDD), medium-diameter HDD (Midi HDD), and small-diameter HDD (Mini HDD). Drilling and pipe installation are done in two or three steps; drill hole and install pipe. It also has many features and application range such as expense, high installation execution, minimal reclamation costs, higher speed on operation and etc. In contrast, there are many disadvantages in HDD which can effect to decrease of using in field services. For example, taking time, solid control problem and estimating of mud flow are some difficulties in this method. However, it has more advantages compare to trench drilling methods, but it need to make a guide book for estimating and decreasing the problems.

**Keyword:** HDD; Pipe installation; Maxi-mini-midi HDD; Utility activity