HORIZONTAL DIRECTIONAL DRILLING PowerTool (HDDPT)

An advanced software solution for HDD design and installation of pipelines and utilities.

IMPROVE DESIGN AND CONSTRUCTION OF ADVANCED HDD PROJECTS

The New Horizontal Directional Drilling PowerTool (HDDPT) enables safe and efficient drilling, reaming, and installation of pipelines at road crossings, water bodies, and railroad right of ways.

Using HDDPT will lower construction risks and costs by providing:

- Advanced HDD design insight and planning for successful execution of all operations.
- A solution that minimizes excavation complexity and lowers cost of pipeline installation.
- Advanced borehole stability to prevent borehole collapse or washout.
- Ad Hoc operational calculations to monitor drilling/pulling operations.

Address all HDD Applications with the latest HDDPT Technology

HDDPT is specifically developed for professionals involved in the design, engineering, and installation of pipelines and utilities by horizontal directional drilling. HDDPT can be used for the design and installation of pipelines and conduits for the following applications:

- Natural Gas
- Petroleum
- Water & Sewer Lines
- Other Fluids
- Telecommunications
- Electric Power Lines

HDDPT has all the engineering calculations needed to quickly solve HDD project challenges. The underlying mathematical models and technical procedures are based on the latest HDD technology and are following current regulations, standards and recommended practices. HDDPT addresses standard stress and pull force analysis for steel and polyethylene pipe, drilling fluid hydraulic and pressure analysis, and addresses the installation of cables in conduits.

PowerTool Functionalities

The advanced PowerTool functionalities are listed below:

- Dynamic Borehole Design
- GIS/Shape File Importation
- Streamlined Data importation
- Borehole Stability and Plots
- Customized HDD Project Reporting

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THE FOLLOWING ARE SOME EXAMPLES OF THE APPLICATIONS AND REPORTS THAT CAN BE USED ON ADVANCED HDD PROJECT WORK.

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The following are some examples of the applications and reports that can be used on advanced HDD project work.

**APPLICATIONS FEATURES AND BENEFITS**

The Horizontal Directional Drilling PowerTool (HDDPT) addresses standard stress and pull force analysis for steel and polyethylene pipe, drilling fluid and pressure analysis, and addresses the installation of cables in conduits.

**DRILLING FLUIDS & MUD MANAGEMENT**

Identify the fluid characteristics and mud requirement for drilling operations to maximize drilling efficiency and wellbore stability.

**PULL FORCE & INSTALLATION ANALYSIS FOR STEEL PIPE**

Accounting for pipe design, stress and safety, the pull forces can be determined on the drill string to maximize pull load and eliminate failures during installation.

**BOREHOLE STABILITY**

Enables proper characterization of drilling fluids, soils and hydraulic pressures to ensure borehole stability and eliminate hydro-fracturing during drilling operations.
APPLICATIONS FEATURES AND BENEFITS

CABLES IN CONDUITS

Given cable configurations and elevation profiles the following can be determined for successful and efficient cable installation: Jam ratio, clearance, tension by location and sidewall pressures.

PULL FORCE & INSTALLATION ANALYSIS FOR PLASTIC PIPE

Analyze the maximum stresses the selected plastic pipe can endure within the borehole configuration and eliminate failure during pipe installation.

PUMP OUTPUT CALCULATIONS

Enables accurate pump output calculations for Duplex and Triplex pumps in design and operations of HDD.

GIS INTEGRATION

Allows for importation of GIS/Shape, KMZ and Lat./Long files for accurate geospatial referencing of HDD projects in HDDPT Calculations.

EXPERT INDUSTRY SUPPORT AND TRAINING

All software is supported by standard and customizable training.
Horizontal Directional Drilling PowerTool
System Specifications

Version 2018.04A (skyBox)
1. Windows 7 and above
2. Google Chrome
3. Internet Explorer version 10 and above
4. Internet Connection

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