

Horizontal Directional Drilling; dealing with the challenges

Horizontal directional drilling (HDD) is one of the fastest growing techniques for trenchless installation of pipelines. On one hand they provide a logical alternative when cables and/or pipes need to cross dikes, wetlands, rivers and other structures that need to remain intact during construction. On the other hand HDD techniques minimize the impact of construction activities in densely populated and economical sensitive areas.

In the Netherlands HDD has been used on a large scale since the eighties. Considering the soft soil conditions in the Netherlands, a lot of experience has been gained in minimizing risks and as a result construction delays. Being able to identify risks on forehand giving different circumstances, allows the application of ideal equipment and methods.

Aim of the course

During this three-day course participants will learn to master the design of HDD crossings while considering the risks involved. This will help participants to choose the appropriate equipment and materials from the large variety that is available today. During this course the state-of-the-art developments in HDD technology are considered.

The course provides:

- an overview of required equipment for horizontal directional drilling;
- choice of specific drilling tools;
- practical and theoretical information about drilling fluids and hydraulic modelling;
- an overview of design aspects;
- risk analyses and risk reducing measures.

Topics are:

- horizontal drilling techniques;
- drilling rigs;
- drill pipes and downhole drilling tools;
- drilling fluids;
- guidance systems;
- small and large diameter crossing;
- design aspects crossings;
- soil investigation and soil behaviour;
- product pipes.



Course leaders

- Henk Hergarden is senior consultant pipelines and tunnels at Deltares. He is a member of the board of the Netherlands Society for Trenchless Technology (NSTT).
- Gerard Hoogveld is former director of LMR Drilling and former president of the Drilling Contractors Association (DCA).
- Hans Ringers is former director of Visser & Smit Hanab, and former president of the Drilling Contractors Association (DCA).

Procedure

The course consists of presentations, lectures, discussion sessions and workshops, all in English. Several companies will present their tools and equipment.

Certificate

We provide a certificate of participation after completion of the course.

Excursion

The fourth day of the course is an optional day with an excursion and a visit to a drilling site.

Enrolment, fee and registration

The registration fee is € 1,450.-- for three days and € 325.-- for the optional fourth day with excursion, excluding VAT. The course fee includes the textbook *HDD Practice Handbook* by H.-J. Bayer. In order to register for this course, please use the electronic registration form on our website www.deltaresacademy.com.



Course date

26 - 28 October 2010
(optional excursion day on 29 October)

Location

Deltares, Stieltjesweg 2, 2628 CK Delft
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Accommodation

Please check our website www.deltaresacademy.com for the special hotel arrangements.

Transportation

From Schiphol Airport frequent train services operate to and from Delft (total travelling time approximately 45 minutes). Our website www.deltaresacademy.com provides more details on how to get to Deltares.

More information

For more information, the course schedule, the list of instructors or any other question, please visit our website www.deltaresacademy.com or contact the course coordinator, Marion Arkesteijn (T +31 (0)88 335 7500 or e-mail sales@deltaresacademy.com).

Deltares Academy is the training facility of Deltares.