

FHC online training course

Canute offers bespoke onsite and online training courses covering basic introductions and concepts to more advanced commands.

AIMS



Understand the basic concepts and equations used in hydraulic calculations and use the Canute FHC hydraulic software from data entry to a final report. We will also cover more advanced more advanced concepts.

OUTCOMES



On completion, delegates should understand the following:

- How to use hydraulic equations.
- Understand different pipework configurations and their effect on the calculations.
- Enter data into FHC.
- Optimise a hydraulic model by modifying pipe sizes and or heads.
- Utilise water supply curve for the calculation.
- Use more advanced FHC commands.
- Output reports and understated the results.

KEY DETAILS AT A GLANCE

SUBJECT

Canute FHC – Hydraulic calculation software

CLASS SIZE

5

VENUE

Zoom

QUALIFICATION

CPD

DURATION

7 hours

TOTAL TIME

6 hours (1 day)

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COURSE OUTLINE

We start the course with an introduction to hydraulic equations and basic concepts, including K-factor, static pressure, Hazen Williams & Darcy-Weisbach pressure loss equation and design density. We will also look at how diffract pipe layouts can affect the calculations.

You will learn to enter data into FHC to create a hydraulic model, starting from a simple tree to building up to more advanced looped and grided systems.

We will learn how to modify and optimise the hydraulic model by changing pipe sizes with the interactive and global change commands.

WHAT YOU WILL NEED FOR THE COURSE

You will need a working copy of the latest version of the FHC software. If you do not already have an FHC software license, we can provide you with an educational three-month license to use on the course and afterwards to practise and hone your skills.

BELOW IS AN OUTLINE OF THE COURSE AND THE CONTENT WHICH IS COVERED

Section 1 – hydraulic equations and basic concept

- K-factor
- Design density
- Hazen Williams equation
- Darcy Weisbach and Reynolds's number
- Static pressure
- Equivalent pipe length of pipe fittings and valves

Section 2 – Pipework configuration, trees, loops, and grids

- Trees
- Loops
- Grids

Section 3

- Introduction to FHC and its, menus, toolbar, shortcuts & status bar.
- Change views and view data (node numbers, pipe size, pipe properties)
- Node numbering and auto node numbering
- Enter and calculate a simple tree system

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Section 4 – Build a more complex system using the following commands.

- Copy
- Break
- Delete
- Undo
- Interactive Edit
- Renumber nodes
- Add head code to a project

Section 5

- Head selection and calculation
- Pipe, & head reports
- Create a final report and understand its content.
- Export the FHC model to DXF

Section 6 – Loops, grids, and slopes

- Introduction to slopes and how to enter them into FHC.
- Create a new FHC project using commands we have already covered.
- How to create a pipe loop in FHC
- Complete the exercises and calculate.

Section 7 – Water supply

- Add a water supply curve to a project
- Check the report and understand the difference

Section 8 – Advanced commands

- Added pipe length and why it's useful
- Add and remove additional Elbows and Tee's
- How to add a fire hydrant or water cannon
- Orifice plate
- Pressure drop at