







Water Hammer Analysis using BOSfluids

Online Course



BOSfluids

-  Self-paced
-  7 modules
-  7.5 hours
-  English
-  1-yr access
-  SPC119



Learn from home
100% online training



Video Lectures
watch multiple times



Available 24/7
1-year unlimited access



Personal Certificate
to prove your knowledge

Course Objective

*"To enable BOSfluids users to be **highly effective users** and perform water hammer **analysis independently**."*

Program

| | | |
|----------|-----------------------------------------|-------------|
| Module 1 | Water Hammer Analysis and Mitigation | 53 min |
| Module 2 | BOSfluids Fundamentals | 59 min |
| Module 3 | An overview of BOSfluids | 1 hr 07 min |
| Module 4 | Steady State analysis in BOSfluids | 1 hr 25 min |
| Module 5 | Analysis of Pressure transients | 55 min |
| Module 6 | Pressure Transients due to Flow Devices | 1 hr 01 min |
| Module 7 | Cavitation and Pressure Transients | 1 hr 03 min |

Results

- ✓ Have a solid understanding of water hammer phenomena
- ✓ Can perform water hammer analysis of basic scenarios in BOSfluids
- ✓ Know how to interpret pressure surge results
- ✓ Understand the influence of cavitation in piping systems
- ✓ Are familiar with the BOSfluids solvers
- ✓ Know how to link your results to pipe stress analysis software
- ✓ Have seen numerous real-life cases of water hammer phenomena in industrial piping
- ✓ Know different mitigation measures and their applicability
- ✓ Are capable of assessing pressure surge reports to take actions for mitigation of their system at hand

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Provided by



Frank Bos, PhD

Project Engineer, Dynaflow Research group

Mechanical, Piping, FEA, CFD

DYNAFLOW
RESEARCH
GROUP.

Dynaflow Research Group specializes in the advanced end of the engineering spectrum. Their work often requires a multi-disciplinary approach: encompassing the static and dynamic analysis of both fluids and gases, and mechanical components.

They are at their best when creative thinking and a practical approach are required to tackle a problem.

Course Summary

This course teaches you all the fundamentals of performing water hammer analysis using BOSfluids.

Background knowledge about water hammer phenomena and analyses methods are provided as well as tutorials in performing such analyses in the BOSfluids software. Results are discussed in detail to provide a solid understanding of their interpretation. Next to different water hammer scenarios and their analysis also many real-life cases are provided and associated mitigation measures are discussed.

After this course you are a confident user of BOSfluids that understands good design practices and analysis methods for water hammer phenomena in piping systems.

The course allows you to learn at your own pace and is fully provided online. You receive 1-year unlimited access to all modules, which allows you to perform them over again when you need to refresh knowledge for your work projects.

Who should attend this course

- Users of BOSfluids that want a solid understanding of the software, analysis techniques and backgrounds
- Those involved with performing pressure surge analysis
- Engineers that need to be able to understand reporting of pressure surge analysis for their system at hand

Prerequisites

- No prior knowledge of BOSfluids is required
- A basic understanding of piping systems is beneficial

Level Intermediate