ENGINEERING TRAINER

BOSpulse Foundations: Pulsation Analysis

Online Course

- 🖥 Self-paced
- ☰ 9 modules
- 🕐 5 hours
- 💬 English
- ↻ 1-yr access
- 🏷 SPC129

Learn from home
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Video Lectures
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Available 24/7
1-year unlimited access

Personal Certificate
to prove your knowledge

Course Objective

"To enable BOSpulse users to have a good understanding of the software and the backgrounds associated with API 618 & API 674 pulsation analysis."

Program

Module	Title	Duration
Module 1	Fundamentals of Acoustics and Pulsations	45 min
Module 2	Working with BOSpulse	58 min
Module 3	Pulsation Analysis of a Compressor	17 min
Module 4	BOSpulse Solver	47 min
Module 5	Codes and Guidelines	37 min
Module 6	Reducing Pulsations	23 min
Module 7	Pipe Stress Interaction	14 min
Module 8	Structural Analysis	9 min
Module 9	Further Discussions	32 min

Results

- ✔ Have a solid understanding of pressure pulsation phenomena
- ✔ Can perform pulsation analysis as per API 618 and API 674
- ✔ Know how to use the BOSpulse software and interpret the results
- ✔ Have seen numerous real-life cases of pulsation analysis in industrial piping
- ✔ Know different mitigation measures and their applicability

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Provided by

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Project Engineer, Dynaflow Research group

Mechanical, Piping, FEA, Flow

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 the fundamentals of pulsations in piping systems and a how to assess these pulsations based on the API 618 and API 674 codes.

The course is intended for engineers involved in the acoustic and/or mechanical design of the piping upstream or downstream of a reciprocating equipment. You will be introduced to the theoretical background of pulsation analysis, and will become acquainted with conducting a code conformance analysis for reciprocating equipment using BOSpulse.

Effective mitigation methods are covered for excessive pressure pulsations and the analysis of these mitigative actions using BOSpulse. Detailed explanation of the effects of dampener configurations, bottles, and other pressure suppression methods are provided using BOSpulse.

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

Who should attend this course

- Users of the BOSpulse software
- Those interested in understanding the theoretical background of pulsation problems
- Engineers involved in API618 and API674 pulsation analyses

Prerequisities

- No prior knowledge of BOSpulse is required
- A basic understanding of flow analysis is beneficial

Level Intermediate