
FACE TO FACE AND VIRTUAL TRAINING COURSES

Pressure relief

A proven approach.

[13-16 June 2023 - Virtual classroom](#)

[18-27 July 2023 - Virtual classroom](#)

[19-21 September 2023 - Durham](#)

[21-23 November 2023 - Edinburgh](#)



Pressure relief

Are you equipped to deal with the challenges presented by pressure relief?

There is no doubt that engineers are faced with the ever increasing challenges that pressure relief is imposing on our industry today. Without the correct design methods and tools, overcoming these challenges would be virtually impossible.

ABB has designed a course specifically to enhance the skills that you need for sound pressure relief design. With ABB's extensive experience of pressure relief system design and operation, providing a practical perspective based on real life experience comes naturally.

What the course will cover

This course provides a practical approach to all of the key steps needed to design and maintain relief systems and concludes with some more complex and advanced topics.

Who will benefit and what they will gain

The course is aimed at everyone involved in the design and operation of relief systems. Following the course you will be able to:

- Improve your company's overall business safety and environmental performance
- Get pressure relief design right first time and avoid costly mistakes
- Discover the potential cost effective alternatives to pressure relief
- Master a structured approach to pressure relief

Duration

Virtual classroom

4 days

Face-to-face

3 days

Price

Member of IChemE - £1890 + VAT

Non-Member - £1990 + VAT

Course tutor

Chris Flower is a chemical engineering specialist for ABB and fellow of the IChemE with over 25 years of process engineering experience. Throughout his career Chris has been involved in pressure relief be it, designing new systems, reviewing existing systems or validating systems designed by others across the whole range of process industry sectors. Chris has led the pressure relief course for more than 14 years training over 100 delegates a year.

Agenda

Background to pressure relief

- What is pressure relief and why use it?
- Approach to pressure relief design
- Pressure relief and the design process
- Design team and responsibilities
- Inherent safety in pressure relief
- Alternatives to pressure relief

Identification of relief events

- Identification of events leading to excessive pressure and vacuum

Calculation of the required relief rate

- External fire
- Flow from high pressure source
- Heat and energy input from associated equipment
- Pumps and compressors
- Ambient heat transfer
- Liquid expansion in pipes

Discharge and disposal

- Discharge and disposal of vented material

Relief device hardware

- Anatomy of a safety valve
- Bursting disc hardware
- Devices for special applications
- Selection and types of relief devices

Relief system sizing

- Safety valve sizing
- Design criteria for relief systems
- Computer software and pressure relief

Installation, inspection and maintenance

- Relief system documentation
- Installation of pressure relief devices
- Relief systems inspection, maintenance and operation

Pressure relief codes and legislation

- Pressure relief codes and legislation

Chemical reaction hazards

- Developing a basis of safety for chemical reaction hazards

Blowdown and flares

- Blowdown and flares

Two phase flow

- Two phase flow design principles
- Two phase flow and DIERS method

Low pressure tanks

- Venting of low pressure tanks
 - Low pressure tank relief devices
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ABB reserve the right to amend the agenda.

How to book

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