

Training - Introduction to hydrogen compression



INTCOHY-EN-P



Face-to-face only



2,5 days

This course gives the key points of hydrogen compression and compressors operation, no matter the use (hydrogen production, transportation, storage, end use)

Level

Awareness

Public

Engineering staff involved in hydrogen compression

Objectives

Attendees will be able to implement the following skills:

- Explain the influence of operating parameters on compressor performance taking into account the physical phenomena related to compression and a change in gas nature
- List the components of each compressor type and their importance to machine selection and sizing

Pedagogical & technical resources

- Interactive lecture
- Use of actual machine parts and open machines
- Study of actual drawings, cutaways, PIDs...

Assessment of achievements

Quiz

Prerequisites

No prerequisites are necessary to follow this course

Responsible

IFP Training instructors, with expertise in the field and trained in modern teaching methods adapted to the specific needs of learners from the professional world

Program

COMPRESSORS TECHNOLOGY

1 day

Hydrogen compression: compressors types. Practical implementation through a given process.

Technology: Casing, stationary and rotating parts, according to the machine type.

Auxiliaries: lube oil, sealing,... according to the machine type.

Safety devices: vibrations, bearings/thrust bearing temperatures, oil pressure... according to the machine type.

Natural gas compressor technology vs hydrogen one.

Demonstrations: study of actual parts and open machines.

COMPRESSORS PERFORMANCES

1 day

Gas Compression: key points. Natural gas compression vs hydrogen compression.

Compression mechanism through a compression stage, according to the machine type.

Operating limits, according to the machine type: discharge temperature, surge, maximum pressure...

Performance vs operating conditions: pressure ratio, suction conditions, rotation speed...
Vibrations, critical speeds.

COMPRESSORS OPERATION AND SURVEY

0.5 day

Flow control.

Case study: flow control vs various operating conditions.

Start-up and shutdown. Associated risks.

Compressor survey key points.

To French entities : IFP Training is referenced to DataDock ; you may contact your OPCO about potential funding.

Please contact our disabled persons referent to check the accessibility of this training program : referent.handicap@ifptraining.com