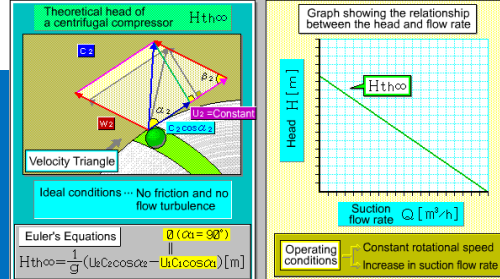


Compressor Basics Course II (Centrifugal Compressor)



Purpose

To master performance monitoring and operation management methods using the centrifugal compressor as an example.

Characteristics

- ★ Learn about the theory of centrifugal compression, performance, and basic operational knowledge using cut section models of centrifugal compressors and videos of various experiments relating to operational theory.
- ★ Combining animated computer graphics, narration, and real video imagery, the explanations are given a sense of presence and realism.

Curriculum

Introduction

Chapter 1 Basic Understanding

Chapter 2 Performance Curves

Chapter 3 Operating Conditions and Performance Curves

Chapter 4 Centrifugal Compressor System

Chapter 5 System Operation Management

Who should take this course

Novice and mid-level employees responsible for maintenance work, operators and engineers on production-sites (plants), workers, supervisors, and administrators in the field

Course material outline

- ◆ Expected learning time: 3 hours
- ◆ Number of tests: 2
- ◆ Shortest duration: 60 minutes

Supervised by

Idemitsu Kosan Co., Ltd. Technical Training Center

CurriculumChapter 1 Basic Understanding

- 101 Structure and Gas Flow
- 102 Compression Mechanism

Chapter 2 Performance Curves

- 201 Head
- 202 Pressure
- 203 Work and Motive Power
- 204 Efficiency and Shaft horsepower (1)
- 205 Efficiency and Shaft horsepower (2)
- 206 Summary Exercises 1

Chapter 3 Operating Conditions and Performance Curves

- 301 Surging Region
- 302 Practical Flow Control (1)
- 303 Practical Flow Control (2)
- 304 Impact of Fluctuations in Operating Conditions (1)
- 305 Impact of Fluctuations in Operating Conditions (2)
- 306 Impact of Fluctuations in Operating Conditions (3)
- 307 Impact of Fluctuations in Operating Conditions (4)
- 308 Impact of Actual Fluctuations and Surging
- 309 Summary Exercises 2

Chapter 4 Centrifugal Compressor System

- 401 Thrust Balance
- 402 Seal System (1)
- 403 Seal System (2)
- 404 Seal Oil System
- 405 Lubrication System

Chapter 5 System Operation Management

- 501 Seal Oil System Management (1)
- 502 Seal Oil System Management (2)
- 503 Precautions during Startup
- 504 Summary Exercises 3