

Common Valves: Butterfly, Gate, and Pressure Regulator

Relevancy: DWP 0.1

Date/Time: Various Dates and Times

Location: Online learning platform, HSI

Summary: This learning program contains three subparts, each with lesson exams.

- 215-15 Butterfly Valves (50 minutes)
- 215-03 Gate Valves (55 Minutes)
- 215-15 Pressure Regulator Valves (35 Minutes)

Total instructional time (estimated by vendor): 2 hours, 20 minutes

Training Description and Objectives:

215-15 Butterfly Valves (50 minutes)

Many industrial facility applications use butterfly valves. They range in size from 2 to 72 inches. They can handle fluid pressure up to 2500 psi and temperatures over 1000 degrees F. A butterfly valve can be used as a stop valve. However, it is primarily used in high flow and low pressure situations. The Butterfly Valves training course explains the use, selection, and design of typical butterfly valves found in industrial applications. This course covers butterfly valve operation, butterfly valve seat and body construction, and butterfly valve disk and stem assemblies.

Learning Objectives:

- Describe the operation of a butterfly valve;
- Compare the butterfly valve to other valve types, and list its advantages;
- Describe the seat and body construction of a typical butterfly valve; and,
- Explain the types of disk and stem assemblies available on a butterfly valve.

Language: English

Length: 50 Minutes

Final Exam: Yes

Self-paced: Yes

215-03 Gate Valves

Gate valves have a simple design and function. They are used for zero flow and full flow services and flow isolation. Normally, gate valves are placed where straight free flow is required and an immediate flow shut-off may be needed. The Gate Valves training course explains the use, selection, and design of a gate valve. It also describes how different service conditions affect gate valve configuration.

Learning Objectives:

- Describe the operation of a gate valve;
- Discuss some advantages and disadvantages of a gate valve;
- List various gate valve disk configurations and identify the conditions under which they are used; and,
- Describe different gate valve stem and valve seat designs.

Language: English

Length: 55 Minutes

Final Exam: Yes

Self-paced: Yes

215-15 Pressure Regulator Valves

In industrial operations, gases and fluids must be regulated for safe and effective plant operations. The Pressure Regulator Valves training course describes the design and function of these valves as used in industrial facilities. This online course focuses on self-operated/pilot-operated valves, direct control valves, and fluid overpressure relief valves.

- Identify basic characteristics of pressure regulating valves;
- Describe the basic operation of self-operating/pilot-valves;
- Describe the basic operation of direct control valves;
- Describe the basic operation of fluid pressure regulating valves.

Language: English

Length: 35 Minutes

Final Exam: Yes

Self-paced: Yes