

Valve Installation and Maintenance Seminar



Swagelok Northern California Formal Training Program

Valves are dynamic components in most fluid delivery systems. They are designed to open or close, regulate flow, switch flow directions, and provide safety relief. In most systems, valves are expected to perform these functions repeatedly and without failure. How well they carry out these objectives, to some extent, is influenced by the care with which the valve was selected and the procedures employed when it was installed into service. Many performance problems can be avoided by following a few simple guidelines during the fabrication of a fluid delivery system.

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For additional information regarding the *Valve Installation and Maintenance Seminar*, please contact Swagelok Northern California at:

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Armed with a better understanding of a valve's limitations and the knowledge of what can and cannot be repaired, valve service life can be extended dramatically.

The dynamics of a valve opening and closing, repeated through numerous cycles, will cause even the best-engineered and most precisely manufactured valve to wear with the passage of time. Armed with a better understanding of a valve's limitations and the knowledge of what can and cannot be repaired, valve service life can be extended dramatically. High quality valves are designed to perform trouble free and provide a long cycle life, but poor installation and maintenance procedures can lead to premature valve failures and reduce the mean time before failure.

The class is a lecture-lab that presents Valve Installation and Maintenance through the use of demonstrations and hands-on exercises intended to broaden a student's knowledge about valves and how they operate. The class provides practical maintenance techniques on the valves most

Each student receives:

- ✓ Useful reference materials
- ✓ A certificate of completion that certifies completion of the valve installation and maintenance training.

commonly found in the student's facility. The course content is specifically tailored to the customer so the student learns only about components relative to his job responsibilities. The class focuses on the following subjects:

- An overview of valve installation protocol.
- A review of assembly instructions for the most commonly used end connections (tube connections, weld ends, pipe threads, face seal, etc.).
- Installation techniques for ultra-high purity components.
- Valve troubleshooting techniques designed to help the student identify the most common failure modes in valves.
- Techniques for assembling and reassembling valves.
- How to install valve maintenance kits, lubrication techniques, and valve maintenance procedures.



The course objectives are accomplished through the use of graphic illustrations, cut-away product samples and hands-on exercises.

The class is designed for anyone involved in the installation and maintenance of valves, including but not limited to, system fabricators, contractors and maintenance technicians. Quality control and safety engineers will benefit from a better understanding of valve limitations and maintenance cycle requirements. If valve performance concerns are part of your work environment this class may provide valuable insight into maximizing valve performance.

Class Details

The class is a 1-1/2 to 2 hour lecture-lab. The length of the class is tied directly to the degree of interaction between the student and the instructor and the number of unique valves installed in the customer's facility. The class content is based on components currently in use at the customer's facility. The training can be accomplished at the customer's facility to minimize the impact of key personnel being away from the plant.

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