

# Educational Services

Maximize Your Investment with Well-Trained Personnel



## Control Valve and Instrument Troubleshooting – Basics

### Course 1450 (CEUs: 2.1)

This 3-day course uses a very hands-on approach for troubleshooting and correcting many common control valve problems. The class will be introduced to the practice of basic valve sizing and selection. Valve problems such as cavitation, flashing, and aerodynamic noise are also discussed as well as common solutions to these problems using different control valve trims and materials. Instrumentation topics are expanded from course 1400/1400V and 1700/1700V to include troubleshooting and advanced calibration for split ranging, non-compatible signals, or using additional instruments such as a volume booster and trip valves. Loop performance issues due to stick-slip, high friction, and instrument operation are discussed.

#### Audience

This advanced course is for experienced valve mechanics and maintenance personnel, instrument technicians, and others who will benefit from a broadened perspective of control valve performance and effect on total loop operation.

#### Prerequisites

Completion of courses 1400 or 1400V (with 1400W) and 1700 or 1700V (with 1700W).

#### Topics Include

- Control Loop Basics
- Influences on Loop Performance
- Control Valve Selection and Sizing
- Valve Troubleshooting
- Actuator Troubleshooting
- Instrument Selection
- Basic Instrument Troubleshooting
- Severe Service Considerations

#### Educational Services

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*Emerson Educational Services is accredited by the International Association for Continuing Education and Training (IACET) and is accredited to issue the IACET CEU.*



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## Course Information

- Date:** August 27-29, 2019 **Note:** Date change from 5/7/19-5/9/19.
- Location:** R.E. Mason, 1726 North Graham St., Charlotte, NC 28206
- Price:** \$2,940 per person
- Sponsored By:** Emerson Educational Services and R.E. Mason.
- Registration:** Payment is required at the time of enrollment.  
Please make PO, Check or Credit Card to Robert E. Mason & Associates, Inc.
- Contact for Questions:** Kathleen Myers | Education Coordinator  
Email: [Kathleen.Myers@remasonco.com](mailto:Kathleen.Myers@remasonco.com)  
Phone: (704) 375 4464
- Website:** <https://remason.com/training>

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