

## COURSE 1350: CONTROL VALVE ENGINEERING 2

### **Overview:**

This course is for practicing engineers and senior technicians who are seeking advanced training in control valve selection and sizing, and application problem solving.

This 3 day course proceeds from a review of basic sizing and selection concepts to advanced concepts used when selecting and sizing control valves for severe service and unusual applications. The course includes lectures and numerous problem-solving sessions that make extensive use of Firstvue software and other sizing and selection tools. Students who complete the course will:

- select and size control valves and diffusers to reduce aerodynamic noise
- select and size control valves for cavitating applications
- select and size steam conditioning valves
- select valve types and options for corrosive and erosive fluids
- size control valves for two-phase flow and hydrocarbon mixtures

### **Prerequisites:**

Control Valve Engineering 1 course (Course 1300) or have equivalent experience (minimum of two years specifying control valves and instrumentation). Familiarity with Firstvue is recommended.

### **Topics:**

- Aerodynamic Noise/Whisper Trim
- IEC Noise Prediction
- Whisper Flow Diffusers
- Cavitation Issues and Solutions
- Steam Conditioning Valves
- High Pressure/Temperature Issues
- Sizing for Two Phase Flow, Fluid Mixtures, and Dissolved Gas
- Corrosive/Erosive Service
- Actuators: Stroking Speed, Hysteresis, and Other Control Application Guidelines

### **Location:**

Auckland Branch:

16 Mahunga Dr  
Mangere Bridge  
PH: 09 634 1391