

Valve Automation Valve Automation combines the strengths of five world-recognized brands; Bettis, Dantorque, El-O-Matic, Hytork and Shafer into a single unit. We capitalize on more than 100 years of combined experience dedicated to only one thing - controlling and automating valve operation. No one else can offer the breadth of product or the scope of service. As the world's leader in valve automation, we are constantly innovating and improving on the quality of our products and are able to augment our own resources with those of our colleagues in the Emerson organization.

Bettis Gas/Hydraulic Product Servicing

Course VA101 CEUs: 2.8

Overview

This 4-day course uses classroom style lectures and hands-on experience with working models to teach the student to:

- assemble, install, operate and maintain a gas/hydraulic actuator
- use troubleshooting techniques and tests to identify problems in gas/hydraulic systems, and perform routine maintenance and emergency repairs on each component
- install any Bettis control device on the corresponding actuator, connect calibration equipment, and carry out set-up and calibration procedures
- adapt and install control upgrade or modification kits including all tubing connections and final adjustments
- identify graphic fluid schematic symbols, match to the actual control device, and integrate the symbols into a functioning relationship

Prerequisites

Students should be involved with the application, service or maintenance of Bettis Canada gas/hydraulic products.

Topics

- Gas/Hydraulic Actuators
- Gas/Hydraulic Control Systems
- Gas/Hydraulic Control System Accessories
- Control Applications
- Control Component Calibration
- New Products

Price/Location/Start Date:

Edmonton, AB
Call 780-450-3600 to Discuss



Bettis PressureGuard & Linear Actuators, Control Systems & Accessories & Multiport Flow Selector Products

Course VA102 CEUs: 2.1

Overview

This 3-day course provides an introduction to the range of valve actuators, control components and systems manufactured by Bettis in their Edmonton, Alberta facility. In addition to discussing product features and benefits, students will be given a broad overview of the valve automation industry and provided with training on product selection and applications.

Prerequisites

Involved with the purchase, application and marketing or sales of products.

Topics

- PressureGuard (Self-Contained Hydraulic) Control System Overview
- LineGuard Electronic Linebreak System
- Non-API Linear Actuator Selection/Sizing
- API Linear Actuator Selection/Sizing
- Multiport Flow Selectors Overview

Price/Location/Start Date:

Edmonton, AB
Call 780-450-3600 to Discuss



Bettis Rack & Pinion & Scotch-Yoke Product Servicing

Course VA103 CEUs: 2.1

Overview

This 3-day class provides comprehensive information concerning the installation, operation and maintenance of all Bettis Waller products.

Prerequisites

Involved with the purchase / application / marketing or sales / service of products.

Topics

- Valve Automation Center Contract Review
- Installation/Maintenance Instruction Manuals
- Product Serial Numbers Review
- Service Procedure Index Review
- General Operating/Maintenance Instructions
- General servicing information on RPB, RPC, D, CB, CBA 300, HD, T and G-Series Actuators
- Conversion of Fail-Close Spring-Return G-Series Actuators to Fail-Open Spring-Return
- Field Service Work Performed by VAC's, Bettis Waller Procedure Review
- 2-1/2 days of Practical Exercises Involving the Disassembly/Reassembling of Products

Price/Location/Start Date:

Waller, TX
Call 281-727-5300 to Discuss



Bettis Rack & Pinion & Scotch-Yoke Products

Course VA104 CEUs: 2.8

Overview

This 4-day course provides an introduction to the range of pneumatic and hydraulic valve actuators manufactured by Bettis in their Waller, Texas facility. In addition to discussing product features and benefits, students will be given a broad overview of the valve automation industry and provided with training on product selection and applications. Common pneumatic and hydraulic control components and systems will also be discussed; and a review of competitive products.

Prerequisites

Involved with the purchase/ application/marketing or sales of products.

Topics

- D-Series Actuators Overview
- CBA-Series Actuators Overview
- CBA 300-Series Actuators Overview
- G-Series Actuators Overview
- Bettis Electronic Data Formats Overview
- Torque Mechanisms Overview
- Manual Overrides Overview
- Actuator Selection/Sizing
- Introduction to Valve Automation Sizing Tool (VAST)
- Common Control Components/Control Systems
- Valve Mounting Hardware Overview
- Competitor Product Comparisons
- General Practical Work

Price/Location/Start Date:

Waller, TX
Call 281-727-5300 to Discuss

Dantorque Products

Course VA106 CEUs: 1.4

Overview

This 2-day product training course provides an overview of the valve automation products manufactured by Dantorque. Primarily focused on product features & benefits, sizing/selection and applications; service/ maintenance training can also be provided if requested in adv. of the class. Classes will be tailored to meet specific needs.

Prerequisites

Students should be involved with the purchase, application, marketing, sales or service/maintenance of Dantorque products.

Topics

- Introduction
- Overview Dantorque Actuators
- Onshore, Offshore and Subsea Applications
- General Control Options
- Subsea Control Options
- ROV Overrides
- Actuator Sizing/Selection
- Question and Answer Session

Price/Location/Start Date:

This training can be tailored to a specific project application and is usually conducted at the customer's location.

Please call Mike McQuade, Product Manager at 419-529-4311 ext. 1170 in Mansfield, OH to discuss.

El-O-Matic Products

Course VA107 CEUs: 2.1

Overview

This 3-day class provides information on the ranges of pneumatic and electric actuators and accessories available from El-O-Matic. Detailed information on electric actuator module boards/ bus communication options will be addressed.

Prerequisites

Students should be involved with the application, marketing, sales or service/ maintenance of El-O-Matic products.

Topics

- Electric Actuator Series (ELS/EL/ELD & ELQ)
 - Identification of Components; - Basic Bench Testing; - Installation Options;
 - Actuator Sizing/Selection; - Control Options;
 - Hands-on Training Covering Installation of Module Boards for Different Control Functionality; - Bus Communication Options;
 - El-O-Matic Sizing Program
- Pneumatic Actuator Series (E & P Series)
 - History; - Identification of Components;
 - Comparison of E & P Series Actuator;
 - 180° Rotation Actuators; - Actuator Sizing/Selection; - Available Accessories
 - Hands-on Training Including; Spring Changes, Seal Changes, Travel Stop Adjustment and Mounting of Accessories;
 - El-O-Matic Sizing

Price/Location/Start Date:

Tampa Bay, FL
Call 813-630-2255 to Discuss

To enroll in Valve Automation courses reference phone number under course description. For additional contact information refer to the appropriate contact on page 119. Updated dates & locations are available on our website at www.emersonprocess.com/education.

Hytork Products

Course VA108 CEUs: 2.1

Overview

This 3-day class provides a solid grounding in valve automation solutions in general with detailed and specific information given on the range of actuators and control accessories available from Hytork. Classes are tailored to fit specific student requirements.

Prerequisites

Students should be involved with the purchase, application, marketing, sales or service/maintenance of Hytork products.

Topics

- Overview of Hytork
- Key Accounts and Markets
- Pneumatic Actuators, History, Theory and Different Types
- Comparison of Pneumatic Actuators to Electric, Hydraulic and Electro-Hydraulic Designs
- Advantages of the Rack & Pinion Design
- ISO Standards
- General Valve Automation Applications
- Hytork Actuator Variations and Evolution
- Valve Automation Accessories Including Limit Switches, Solenoid Valves, Speed Control Valves and Valve Mounting Options
- Mounting of Control Accessories
- Hytork Product Features and Benefits
- General Valve Types/Torque Characteristics
- Actuator Sizing Techniques, Test Questions
- Hytork Actuator Sizing Program
- Hytork Drawing Types and Procedures
- QA Systems, Functions, RMA's and Customer Complaint Handling
- Hytork Product Warranties
- Price Book Review
- Hands-on Review of Competitive Products
- Selling and Marketing Techniques
- Hands-on Actuator Assembly, Disassembly, Mounting and End-Stop Adjustment
- Question and Answer Session
- Final Test

Price/Location/Start Date:

Tampa Bay, FL

Call 813-630-2255 to Discuss

Shafer Products

Course VA109 CEUs: 2.8

Overview

This 4-day product training course provides an overview of the valve automation products manufactured by Shafer. Primarily focused on product features & benefits, sizing/selection and applications; service and maintenance training can also be provided if requested in advance of the class. In addition, an overview of Dantorque products can be included in the class if requested.

Prerequisites

Students should be involved with the purchase, application, marketing, sales or service/maintenance of Shafer products.

Topics

- Introduction and Company History
- Introduction Inside Sales Organization/Basic Funct.
- Plant Tour
- Gas Pipeline Valve/Actuator Applications
- Rotary Vane Actuators
- Assembly of Rotary Vane and Travel Adjustments
- Poppet Block, Hand Pump
- Local Manual Control/Control Schematics
- Control Functions and Components:
 - High & Low Pressure Shutoff; - 2-Way Electric & Failsafe; - ESD; - Pneumatic Linebreak Devices
- Limit Switches and Solenoid Valves
- Rotary Actuator Sizing - Theory and Ex
- Subsea and High Speed Rotary Vane Actuators
- Valve Position System
- LineGuard 2100
- Linear Actuators
- Shafer Service Organization
- Installation and Routine Maintenance of Actuators
- Pricing, Project Pricing & Commission Structure
- Pressure Equipment and Bookings Reports
- Pressure Equipment Directive (PED)
- Quality Assurance; Open Shop Time

Price/Location/Start Date:

This training can be tailored to a specific project application and is usually conducted at the customer's location. Please call Mike McQuade, Product Manager at 419-529-4311 ext. 1170 in Mansfield, OH to discuss.

