

## **Mechanical Drives Training Level 1**

### **Course Outline**

**This 24 hour course is designed to provide participants\* with skills to safely and effectively work on common industrial mechanical systems. Emphasis in the training is directed at performing installation and repairs with techniques to extend service life of machine components.**

#### **Instructional Topics:**

- Safety Aspects of Mechanical Systems
- Machinery Inspection
- Couplings
- Bearings
- Belt Drives
- Chain Drives
- Alignment
- Types of Fasteners
- Lubrication Issues
- Bushings
- Torque and Speed
- Clutches and Brakes
- High Tech Machine Set-up and Monitoring Devices
- Concepts of Maintenance Reliability

#### **Hands-On Challenges:**

- Level and Mount Drive Train Components
- Measure with Dial Indicators and Feeler Gauges
- Tension and Align Belt Drives
- Set-up Chain Drives
- Perform Straight Edge Alignment
- Calculate Chain Wear and Drive Ratios
- Analyze Wear Patterns for Troubleshooting
- Identify Causes for Premature Parts Failure
- Select Proper Fastener Replacements
- Interpret Drawings and Specifications of Drive Components

\*Participants must be familiar with common industrial drive train components