Course Outline [80% Hands-On training]

This class is designed to familiarize the learner with mechanical drives and their roles in industrial applications. You will be able to identify the main components of mechanical systems, how to properly install different types of mechanical drives and the importance of following specific protocols.

Lesson 1: Safety
1.1. Explain the safety PPE requirements dealing with mechanical systems
1.2. Identify different pinch points and other safety cautions
1.3. Explain OSHA regulations

Lesson 2: Drives Systems
2.1. Explain shafts and keyway setting
2.2. Demonstrate shaft alignment using couplings
2.3. Demonstrate pulling a bearing using pullers
2.4. Identify indirect vs direct drive systems
2.5. Identify bearing types and how they work

Lesson 3: Belt Drives
3.1. Identify the main components of belt drives
3.2. Demonstrate shaft alignment using couplings with belt systems
3.3. Identify how to read the sizes and pick belts for different applications
3.4. Explain when and how to change belts

Lesson 4: Chain Drives
4.1. Identify the main components of chain drives
4.2. Demonstrate shaft alignment using couplings with chain systems
4.3. Identify how to read chain and set tension correctly
4.4. Explain how to use master and half links
4.5. Demonstrate how to break chain

Lesson 5: Gear Drives
5.1. Identify the main components of gear drives
5.2. Demonstrate shaft alignment using couplings with gear systems
5.3. Identify how to set gears and align them correctly
5.4. Explain how to know when gears are worn and need to be replaced