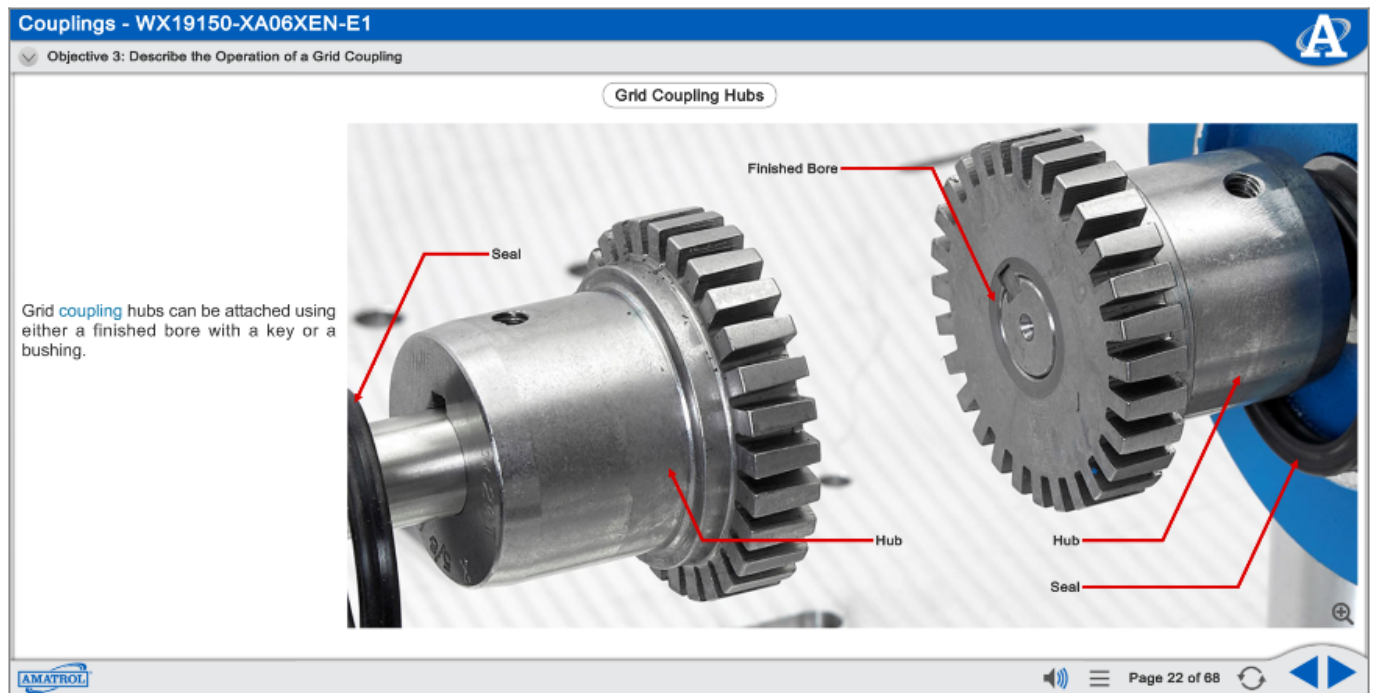


# Portable Mechanical Drives 2 (Metric) | Interactive eLearning



## eLearning Course: M19150

Mechanical drives are used in countless automotive, agricultural, industrial, and commercial applications. Amatrol's Multimedia Courseware – Portable Mechanical Drives 2 (Metric) (M19150) teaches learners essential mechanical drives concepts applicable throughout modern industry. Learners using Amatrol's intermediate mechanical drives eLearning course study the construction, operation, installation, and alignment of heavy-duty V-belt drives, synchronous belt drives, and heavy-duty chain drives.

### Teach Motor Troubleshooting

Amatrol's eLearning curriculum is unique in that it thoughtfully combines in-depth theoretical knowledge with practical, hands-on skills. This powerful combination of knowledge and skills solidifies understanding and creates a strong foundation for pursuing more advanced skills.

For example, the precision gauging eLearning course covers important topics, such as:

#### Heavy Duty V-Belt Drives

Learners begin with an introduction to heavy duty v-belt drives, including conventional, multiple, wedge, and variable speed v-belt drives. Individual lessons focus on topics like the construction and operation of different types of v-belt drives, v-belt configurations, and belt idler pulleys. Learners will also practice skills, such as installing and aligning a multiple belt v-belt drive system with a split taper bushing, installing and aligning a notched v-belt drive system with a QD bushing, and installing and adjusting a backside v-belt idler.

#### V-Belt Selection and Maintenance

Learners will study the selection and maintenance of v-belts, including sizing and troubleshooting. Individual lessons focus on topics like v-belt match codes, how bushings and sheaves are specified, and preventive maintenance. Learners will also practice skills, such as using a belt gauge to determine belt cross section size, identifying size and type of a sheave and bushing given a sample, and troubleshooting a v-belt drive system.

#### Synchronous Belt Drives

Learners using Amatrol's intermediate mechanical drives eLearning course will study basic principles of synchronous belt drives, including timing belt and high torque drivebelt drives. Individual lessons focus on topics like synchronous belt drive selection, maintenance, and troubleshooting. Learners will also practice skills, such as installing and aligning an HTD belt drive system, selecting a timing belt and pulleys for a given application, and troubleshooting a synchronous belt drive system.

### **Lubrication Concepts**

Learners will study various lubrication concepts, including oils and greases. Individual lessons focus on topics like types of lubricants, viscosity, and how oils and greases are specified. Learners will also practice skills, such as using a viscometer to measure oil viscosity, selecting a grease specification for a given application, and reading and interpreting a safety data sheet.

### **Precision Shaft Alignment**

Learners using Amatrol's intermediate mechanical drives eLearning course will study various aspects and components of precision shaft alignment, including couplings and alignment methods. Individual lessons focus on topics like elastomeric couplings, flange couplings, and the reverse indicator alignment method. Learners will also practice skills, such as installing and aligning an elastomer-in-shear coupling, aligning a coupling using the rim and face indicator method, and measuring and correcting for indicator sag.

### **Couplings**

Learners will study various aspects of couplings, including selection, maintenance, and troubleshooting. Individual lessons focus on topics like chain couplings, grid and gear couplings, and preventive maintenance. Learners will also practice skills, such as installing and aligning a grid coupling, identifying the size and type of a coupling given a sample, and troubleshooting a coupling system.

### **Heavy-Duty Chain Drives**

Learners using Amatrol's intermediate mechanical drives eLearning course will study various aspects and components of heavy-duty chain drives, including chain selection, lubrication, and maintenance. Individual lessons focus on topics like silent chain drives, multiple-strand systems, and troubleshooting chain drive systems. Learners will also practice skills, such as installing and aligning a silent chain drive system, identifying the size and type of chain and sprocket given a sample, and cutting a chain using a chain breaker.

## **Virtual Simulator**

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### **Motor Control Troubleshooting Virtual Simulator | Preview**

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For example, the precision gauging eLearning course covers important topics, such as:

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