### **Portable Mechanical Drives 2 Learning System - Metric**

99-ME2M



Student Reference Guide



#### **Learning Topics:**

- Heavy Duty V-Belt Drives
- V-Belt Selection
- V-Belt Maintenance and Troubleshooting
- Synchronous Belt Drives
- Lubrication Concepts
- Precision Shaft Alignment
- Chain, Grid and Gear Couplings
- Coupling Maintenance and Troubleshooting
- Heavy Duty Chain Drives
- Chain Maintenance and Troubleshooting

Amatrol's Portable Mechanical Drives 2 Learning System (99-ME2M) covers the maintenance, installation, and alignment of V-belt and synchronous belt drive systems. These industrial drive systems are used in innumerable real-world manufacturing applications, so understanding how to install, align, and troubleshoot them are vital skills for positions like industrial maintenance technicians and operators. This system is an expansion for Amatrol's Portable Mechanical Drives Systems (990-ME1M), which can be further expanded to include laser shaft alignment skills using the Portable Laser Shaft Alignment system (99-ME2AM).

This portable mechanical drives training system includes components like gear couplings, chain couplings, taper lock bushings, V-belts, pillow block bearings, and more to practice hands-on mechanical drives skills. Learners will advance to these skills by studying Amatrol's world-class curriculum. Specifically, this mechanical drives training system covers topics like V-belt size specifications and component identifications, V-belt maintenance and troubleshooting, synchronous belt drives, high torque belt drives, synchronous belt drive

selection, and synchronous belt maintenance and troubleshooting.

#### **Technical Data**

Complete technical specifications available upon request.

**Grid Couplings Elastomeric Couplings** V-Belt Tensione **Chains & Chain Couplings Gear Couplings** Sheaves **Taper Lock Bushings** Pulleys Flange Couplings **Grease Gun** Clamps Dial Indicator V-Belts **Pillow Blocks** Student Curriculum (M19150) Instructor's Guide (C19150) Installation Guide (D19150) Student Reference Guide (H19150) **Additional Requirements:** 

Adds to 990-ME1M Mechanical Drives 1 Learning System

Optional: Viscometer (18588)

Computer, see requirements: http://www. amatrol.com/support/computer-requirements/

Utilities Required: Electrical: 120 VAC/60Hz/1 Phase Practice Hands-On Mechanical Drives Skills by Installing and Aligning Drive Systems

The Portable Mechanical Drives 2 system includes real-world components like grid couplings, elastomeric couplings, V-belt tensioner, timing belts, sheaves, and more to practice hands-on mechanical drives skills. Examples of skills that learners can practice with the mechanical drives training system include: using a belt gauge to determine belt cross section type; troubleshooting a V-belt drive system; 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.



990-ME2M with V-Belt Tensioner and Pulley

# In-Depth Curriculum for V-Belt Drive and Synchronous Belt Drive Training

Amatrol is renowned for its world-class curriculum, which spans breadth and depth of topics to give learners the most comprehensive training experience. Within the Portable Mechanical Drives training course, learners will study in-depth topics like: methods of identifying belt size

and type; how to select sheaves, bushings, and a V-belt for given applications; how to install and align a timing belt



drive system; how high torque drive belts and sprockets are specified; and maintenance steps for synchronous belt drives. Amatrol's peerless interactive multimedia curriculum utilizes text with voiceovers, pictures, videos, stunning 3D animations, and interactive quizzes and reviews that engage learners in theoretical knowledge and concepts.

# **Expand Your Mechanical Drives Training to Include Hands-On Laser Shaft Alignment Skills**

With Portable Mechanical Drives 2 (99-ME2M) and the base system, Portable Mechanical Drives (990-ME1M), you can expand your program's training range by adding the Portable Laser Shaft Alignment Learning System (99-ME2AM). The laser shaft alignment training system includes a variety of components to practice hands-on skills like: installing and aligning a power transmission system using a jack bolt motor base; using a laser alignment system to correct soft foot; and aligning two shafts using a laser alignment system.



Optional Portable Laser Shaft Alignment Learning System (99-ME2AM)



#### **Student Reference Guide**

A sample copy of the Portable Mechanical Drives 2 Student Reference Guide is included with the learning system. Sourced from the curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-bound book. If you would like to inquire about purchasing additional Student Reference Guides for your program, contact your local Amatrol Representative for more information.

