

# Mechanical Drives 3 Learning System

97-ME3

ME

MECHANICAL



Mechanical Drives 3 Learning System

Mechanical Drives 3

Student Reference

ME  
MECHANICAL

Interactive Multimedia Curriculum and Student Reference Guide

## Learning Topics:

- Plain Bearing Selection
- Plain Bearing Maintenance and Troubleshooting
- Ball Bearing Identification
- Temperature Bearing Installation
- Roller Bearing Identification
- Roller Bearing Applications
- Angular-Contact Bearings
- Antifriction Bearing Selection
- O-Ring Seals
- Seal Maintenance and Selection
- Helical Gear Drives
- Speed Reducer Maintenance
- Gear Lubrication
- Gear Maintenance and Troubleshooting

Amatrol's Mechanical Drives 3 Learning System (97-ME3) covers plain bearings, ball bearings, roller bearings, antifriction bearing selection and maintenance, gaskets, seals, advanced gear drives, and gear drive selection and maintenance. The drive systems featured in this mechanical drives training system are utilized in countless automotive, agricultural, industrial, and commercial applications, so the advanced manufacturing career fields for learners using these skills are vast. This mechanical drives training expansion system requires the Mechanical Drives 1 Learning System (970-ME1), viscometer, and a computer.

This mechanical drives training system consists of a fastener kit, worm gear speed reducer, ball bearings package, roller bearings package, plain bearings package, angular contact bearings, bearing press, seals package, and helical gear set. Learners will use these real-world components to practice hands-on skills, such as troubleshooting a plain bearing installation, selecting a lubricant for an antifriction bearing, and calculating a diametral path. Amatrol uses components that learners work with in real-world environments in order to facilitate the strongest competency skill building and to supply heavy-duty components that stand up to frequent training use.

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## Technical Data

Complete technical specifications available upon request.

Plain Bearing Housing  
Plain Bearings  
Thrust Washers  
Shaft Collars  
Bearing Spacers  
Floating Bearing Housing Spacer  
End Plate Bolts  
Bearing End Plate  
Bearing Press Kit  
Oil Cups  
Bearing Heating Mandrels  
Cup Follower  
Seal Cap  
Pump Seal  
Angular Contact Seal Cap  
Bearing Retainers  
Bearing Sleeves  
Lock Washer  
Lock Nut  
Bearing Locknut  
Taperline Locknut  
Stub Shaft  
Bearing Mandrel  
Bevel Gears  
Helical Gears  
Single End Drive Shaft  
Double End Drive Shaft  
Interactive Multimedia Curriculum (M19153)  
Instructor's Guide (C19153)  
Installation Guide (D19153)  
Student reference Guide (H19153)  
Additional Requirements:

Mechanical Drives 1 Learning System (970-ME1)

Hand Tool Package (41211)

Computer, see requirements: <https://amatrol.com/support/computer-requirements/>

### Utilities:

Supplied by the 970-ME1

## Use Mechanical Drives Training to Practice Skills like Installing a Roller Bearing Using Hot Mounting

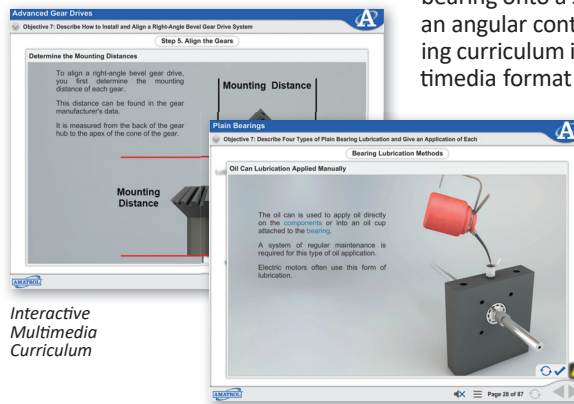
The Mechanical Drives 3 training system includes a collection on packages featuring various real-world components. These components are kept in part storage trays that are stored beneath the frame of the Mechanical Drives 1 Learning System (970-ME1). Components include plain bearings, bearing press kit, bearing sleeves, taperline locknut, bevel gears, helical gears, and more! Learners will use these components to complete skills like lubricating a plain bearing using the oil cup method, removing a ball bearing on a shaft using a bearing puller, cutting a gasket to a specific shape, and installing and aligning a right-angle bevel gear drive system.



Mechanical Drives 3 On The 970-ME1

## Interactive Multimedia Mechanical Drives Curriculum: Self-Paced eLearning Curriculum Available 24/7

Amatrol's Mechanical Drives training curriculum covers a range of topics including the preventative maintenance steps for plain bearings, methods of destructive bearing removal, installing a roller bearing onto a shaft using an arbor press, and mounting an angular contact bearing. This mechanical drives training curriculum is presented in a stunning interactive multimedia format that integrates various types of learning methods to create an astoundingly engaging learning experience. Amatrol's multimedia includes text with voiceovers, video, 3D animations, pictures, and interactive activities, quizzes, and self-reviews.



Interactive Multimedia Curriculum

## Even More Mechanical Drives Training Expansions!

In addition to Mechanical Drives 3, the 970-ME1 can be expanded to train learners on V-belt drives, chain drives, synchronous belt drives, and coupling (97-ME2), as well as clutches, brakes, and flywheels (97-ME4). Further, you can also add systems for Roller Pack Machine Tool Axis (97-ME4-A), Floor-Standing Belt Conveyor (97-ME4-D), and Machine Tool Chip Conveyor (97-ME4-E).

## Student Reference Guide

A sample copy of the Mechanical Drives 3 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.

