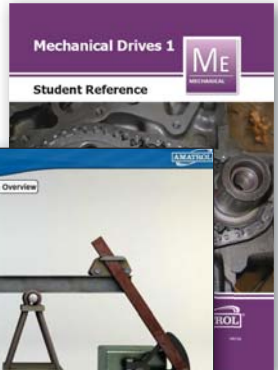


Mechanical Systems 1 Learning System

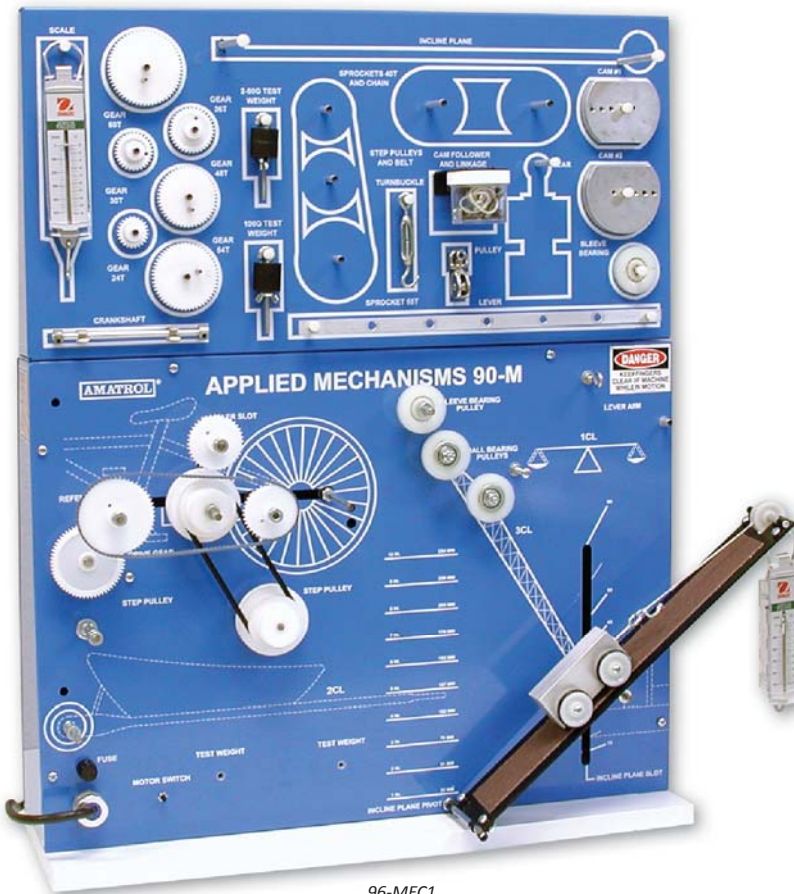
96-MEC1

ME
MECHANICAL

Student Reference Guide



Interactive Multimedia



96-MEC1

Learning Topics:

- Levers
- Mechanisms Concepts
- Force Measurement
- Linkages
- Cams
- Turnbuckles
- Friction
- Inclined Planes
- Fixed Pulleys
- Movable Pulleys
- Gear Drives

Amatrol's Mechanical Systems 1 Learning System (96-MEC1) builds basic mechanical technical knowledge by focusing on the fundamentals of basic mechanisms and simple mechanical systems. This learning system is ideal for future technicians and engineers because it begins with the building blocks of mechanical systems, first conceptually with topics like force, torque, and velocity, and then continues with hands-on skill-building with components like levers, wheels, and inclined planes. Combining theory with skills and components, learners will practice constructing various mechanical systems, taking various measurements, and making a wide array of calculations.

The 96-MEC1 workstation features level 1 and level 2 mechanical components including linkages, cams, turnbuckles, pulleys, and gears. This learning system also includes strong mechanical curriculum with a stunning depth and breadth of knowledge that shows how mechanical concepts are applied in real-world applications such as gear trains, wiper linkages, hoists, and many more!



Technical Data

Complete technical specifications available upon request.

Applied Mechanisms Assembly

- Component Mounting Panel
- Ball Bearing Pulley (2)
- Electric Drive Motor
- Motor Drive Gear
- Pushbutton Switch
- Fuse Assembly
- Incline Plane Stud
- Incline Plane Moveable Stud
- Gear Mounting Posts (5)
- Short Studs (3)
- Power Cord

Applied Mechanisms Components

- Sleeve Bearing Pulley
- Incline Plane Assembly
- Car Assembly
- Test Weight (3)
- Step Pulley Assembly
- Sprocket (2)
- Sprocket Drive Chain
- Lever
- Scale
- Moveable Pulley
- Gears (6)
- Hex Head Wrench (3/32")

Applied Mechanisms, Level 2

- Cam Assemblies (2)
- Cam Follower Component Set
- Shoulder Bolts with Lock Collars
- Crankshaft Assembly with Lock Collars
- Turnbuckle

Interactive Multimedia (MB728)

Instructor's Guide (CB728)

Install Guide (DB728)

Student Reference Guide (HB728)

Additional Requirements

Multimedia Requires a Computer:
<http://www.amatrol.com/support/computer-requirements/>

Utilities

Electricity (120 VAC/60 Hz/1 phase)

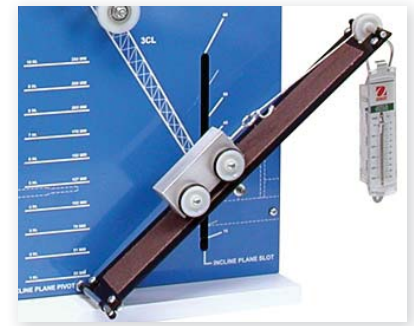
Optional Products

- Virtual Mechanical Systems 1 (VT96-MEC1)
- Mobile Technology Workstation (82-610)

Mechanical Concepts, Theory, and Hands-On Skills

The 96-MEC1's curriculum features an exceptional wealth of basic mechanical knowledge and concepts. Learners will study the theoretical building blocks behind mechanical systems, such as force, mass, velocity, torque, friction, and more. Learners will then use this knowledge to provide a wide array of measurements and calculations, such as the compression rate of a spring in relation to Hooke's Law.

The 96-MEC1 also provides learners with a variety of hands-on skills that put theoretical concepts into use so that they can gain experience and in-depth insight into how components like linkages, cams, and turnbuckles are constructed and applied to real-world mechanisms. Hands-on skills include connecting a slider crank, double rocker, and crank rocker linkages; and connecting and operating a turnbuckle. Learners will also use an electric drive motor to practice motorized skills such as connecting and operating a cam and cam follower then measuring the velocity and dwell of a cam.



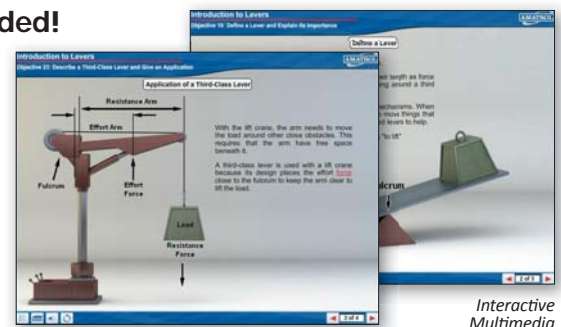
Inclined Plane

A Durable, User-Friendly Learning System

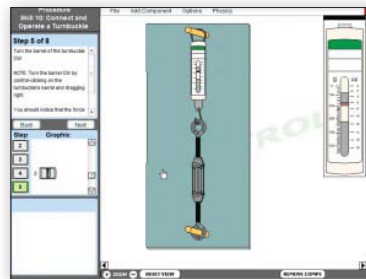
The 96-MEC1 is constructed of durable 16-gauge steel that will withstand frequent use and features silk-screened outlines and labels that allow for quick component identification and inventory. Major components include ball bearing pulley, electric motor drive, incline plane assembly, step pulley assembly, levers, gears, cam assembly, turnbuckle, and crankshaft assembly with lock collars.

Interactive Multimedia Included!

As a means to expand the versatility of this learning system, Amatrol provides the curriculum as highly interactive multimedia in lieu of traditional print-based learning activity packets (LAPs). This multimedia features an exciting presentation with extensive videos, 3D animations, interactive exercises, and colorful graphics to engage, stimulate, and maintain focus.



Interactive Multimedia



Optional Virtual Trainer

The Mechanical Systems 1 Virtual Trainer replicates the hands-on components in such great detail that learners will feel like they are using the actual equipment. This virtual trainer allows learners to become familiar with common components and practice their newly acquired skills either as a stand-alone virtual solution when space is limited or while waiting for others to finish practicing on the real-world Amatrol trainer.

Student Reference Guide

A sample copy of the Mechanical Drives 1 Student Reference Guide is also included with the system for your evaluation. Sourced from the system's multimedia curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfect-bound book. Student Reference Guides supplement this course by providing a condensed, inexpensive reference tool that learners will find invaluable once they finish their training making it the perfect course takeaway.

