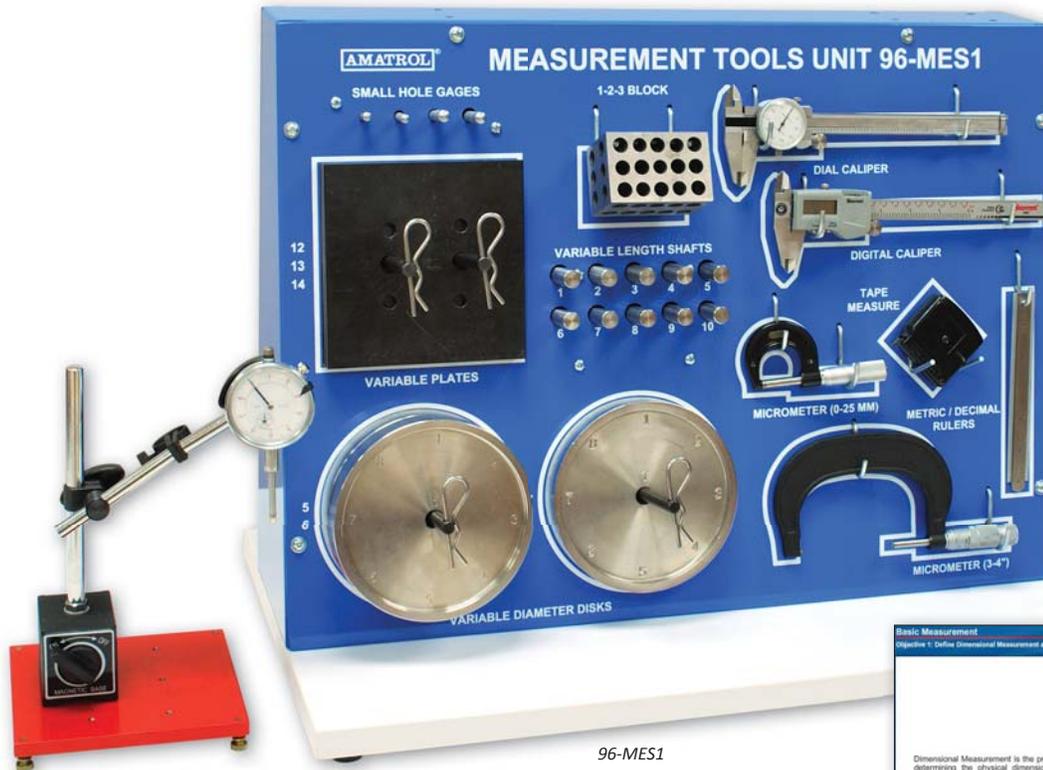


# Measurement Tools 1 Learning System

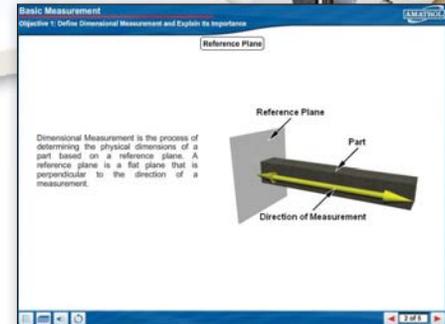
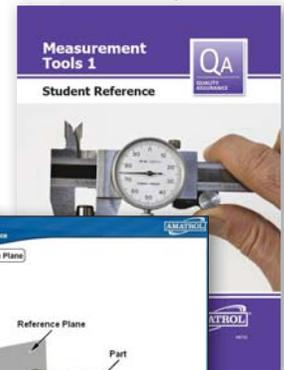
96-MES1

QA

QUALITY ASSURANCE



Student Reference Guide



Interactive Multimedia Curriculum

## Learning Topics:

- SI and US Customary Measurement
- Tape Measure
- Measurement Conversion
- Precision Measurement Tools
- Dial Caliper
- Digital Caliper
- English and Metric Micrometer
- Dimensional Gauging
- Indicator Measurement
- Data Collection

Amatrol's Measurement Tools 1 Learning System (96-MES1) introduces the fundamental principles of measurement including basic measurement, precision measurement, direct gauging, indirect gauging, and dimensional measurements using both the U.S. customary system as well as S.I. metric system. Understanding how to perform accurate measurements is a technical cornerstone necessary for all technical career paths including manufacturing, engineering, science, and medical technology.

The 96-MES1 allows learners to apply fundamental measurement principles using industry-standard tools like dial calipers, micrometers, and dial indicators to achieve accurate measurements that are essential to any technical career or job. Learners will acquire skills such as how to measure length, accurate measurement of inside and outside dimensions, measuring both in U.S. Customary and S.I. Metric units, and collecting measurement data. The 96-MES1 contains precisely-machined and numbered parts that challenge the learner to make accurate measurements. The measurement tools and parts were carefully selected to not only teach the learner how to use the tools properly, but to also teach them the proper application for their use. In addition to the standard curriculum, the 96-MES1 comes equipped with a stunning, highly interactive multimedia curriculum that includes a virtual trainer that allows learners to develop measurement skills on the computer.



## Technical Data

Complete technical specifications available upon request.

### Measurement Tools Level 1

- Dial Caliper
- Decimal Rule
- Metric Rule
- Tape Measure
- 6" Rule
- Micrometer (3-4")

### Measurement Tools Level 2

- Dial Indicator
- Dial Indicator Base
- Magnetic Base for Dial Indicator
- 1-2-3 Block
- Micrometer (0-25 MM)
- Small Hole Gauge Set

### Digital Caliper

#### Parts Package

- Variable Length Shafts (10)
- Variable Diameter Disks (7)
- Variable Plates (3)

### Data Management Software

#### Computer Interface

#### Table-top Workstation

#### Interactive Multimedia Curriculum (MB725)

#### Instructor's Guide (CB725)

#### Installation Guide (DB725)

#### Student Reference Guide (HB725)

#### Additional Requirements:

Computer; See requirements: <http://www.amatrol.com/support/computer-requirements>

#### Recommended Items:

6' Workstation (82-610)

#### Utilities:

Electricity (120 VAC/60 Hz/1 phase)

## Gain Skills Used By Production Technicians, Machinists, and More!

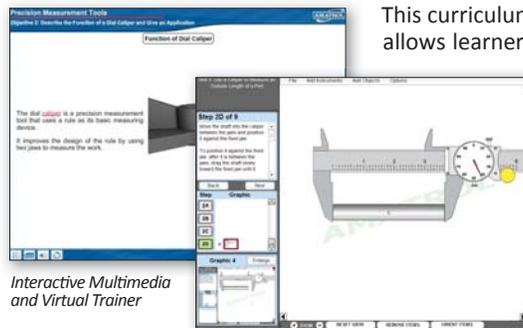
The 96-MES1 uses industry-standard measurement tools relevant to technical careers such as quality control inspector, machinist, manufacturing engineer, operations manager, and production technician. This learning system includes a dial caliper, outside micrometers, steel rules, tape measure, dial indicator with magnetic base, gauge blocks, and small hole gauges. Additional components, such as rectangular plates, shafts of varying dimensions, and disks with machined lips are used to help learners use measuring devices to gain hands-on practice and skills.

Just to name a few specific skills that learners will develop, the 96-MES1 teaches converting between U.S. customary units and SI metric units, measuring the outside dimension of a part using a micrometer, calibrating a dial caliper, mastering a dial indicator, and collecting and displaying data using data acquisition software.



## Highly-Interactive Multimedia and Virtual Trainer Aid Conceptual Comprehension

The 96-MES1 features comprehensive measurement curriculum to teach the theoretical knowledge necessary for easier skill-building and more advanced topics. This curriculum features major topic areas such as SI and US customary measurement, precision measurement tools, dimensional gauging, data collection, and much more! This curriculum is presented in a stunning, interactive multimedia format. Each topic's presentation includes extensive videos, 3D animations, interactive exercises, and colorful graphics that will motivate students and help them learn more effectively.



Interactive Multimedia and Virtual Trainer

This curriculum also features an optional virtual trainer that allows learners to master the correct measuring procedure before using the actual devices. This is a fantastic solution for training additional learners when time working with the 96-MES1's components is limited. This virtual trainer replicates hands-on calipers, micrometers, etc. in such great detail that learners will feel like they are using the actual equipment.

## Collect Real-Time Data with Data Management Software

The 96-MES1 includes Amatrol's Data Management software. This software is a Windows-based program that collects data in real time from digital gauges. Learners will study different ways to collect data and then apply software to improve it.

## Expansion Options Create More Skill-Building Opportunities

Amatrol's Measurement Tools 1 features two fantastic optional add-ons to expand measurement skill building. Measurement Tools 2 (96-MES2) builds on basic data preparation skills to teach statistical process control (SPC), a fundamental underpinning of modern industry. Measurement Tools 3 (96-MES3) teaches dimensioning and tolerancing. Learners will use a v-block and clamp set to practice hands-on conventional and geometric dimensioning and tolerancing (GD&T) skills.



## Student Reference Guide



A sample copy of Measurement Tools 1 Student Reference Guide is included with the learning system. Sourced from the 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. If you would like to inquire about purchasing additional Student Reference Guides for your program, contact your local Amatrol Representative for more information.

