

Measurement Tools 3 Learning System

96-MES3

QA

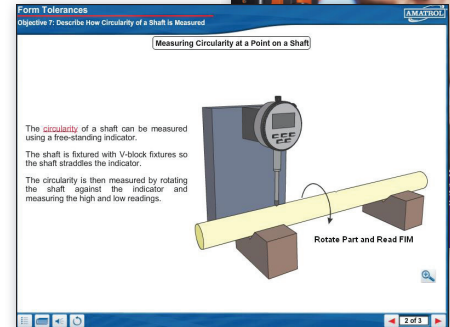
QUALITY
ASSURANCE

Student Reference Guide

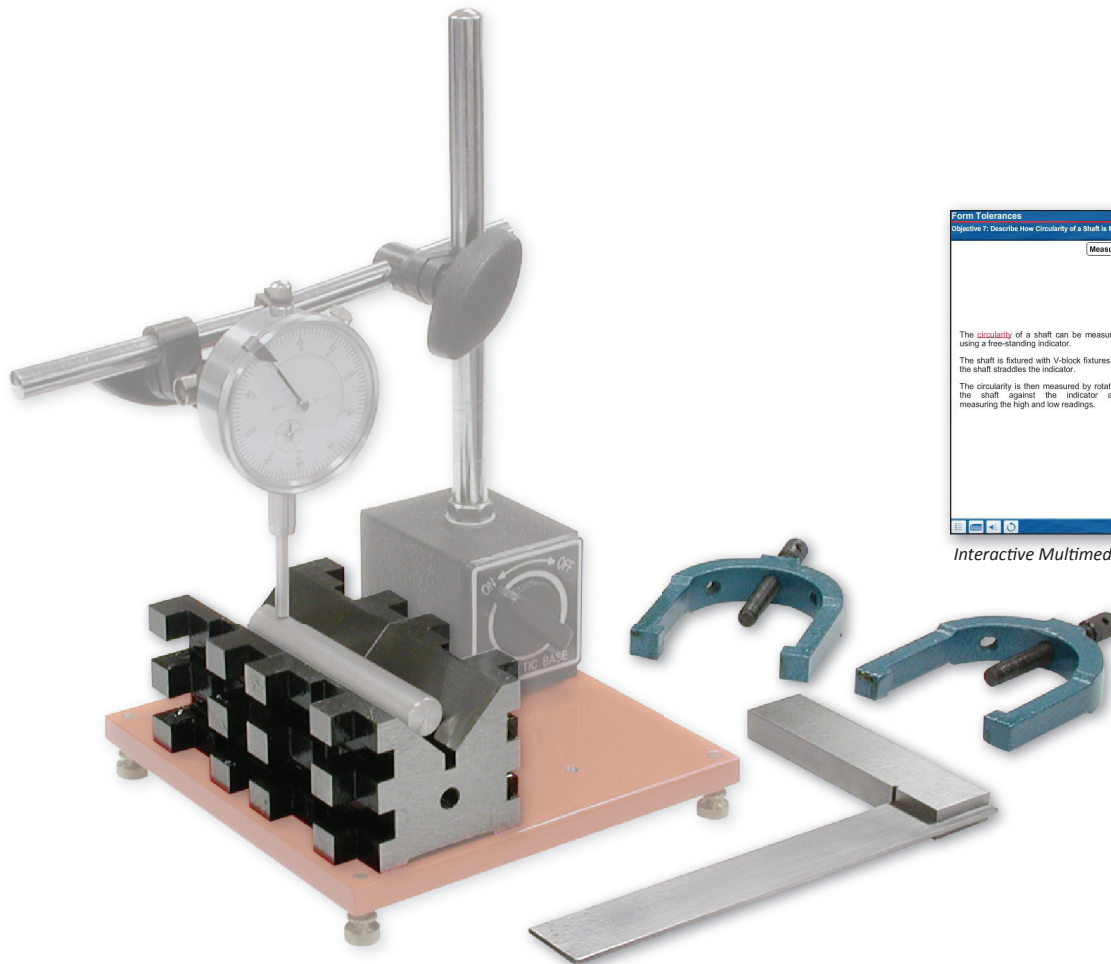
Measurement
Tools 3

Student Reference

QA
QUALITY
ASSURANCE



Interactive Multimedia Curriculum



96-MES3 shown with 96-MES1 components

Learning Topics:

- Geometric Dimensioning and Tolerancing
- Assembly Tolerances
- Feature Control Frames
- Location Tolerances
- Calculating Position Tolerances
- Measuring Hole Locations
- Orientation Tolerances
- Full Indicator Movement Measurement
- Form Tolerances

Amatrol's Measurement Tools 3 Learning System (96-MES3) teaches the high demand skills of conventional and geometric dimensioning and tolerancing, a key component of quality assurance. General Dimensioning & Tolerancing (GD&T) techniques are common practice in a wide range of industries, meaning the knowledge and hands-on practice offered by the 96-MES3 will provide learners with marketable skills. The 96-MES3 covers basic GD&T information and skills before focusing on three main areas: location tolerances, orientation tolerances, and form tolerances.

Measurement Tools 3 utilizes measurement tools and precision parts from 96-MES1 and 96-MES2 and adds a machinist square and a v-block and clamp set to enable more advanced skills to be performed. These components will be used to practice skills such as identifying baseline dimensions, measuring the perpendicularity of a rectangular part, and measuring the circularity and cylindricity of a shaft. The 96-MES3 also includes highly interactive multimedia curriculum and a student reference guide to create a perfect combination of hands-on practice and comprehensive GD&T knowledge for these vital quality assurance skills.

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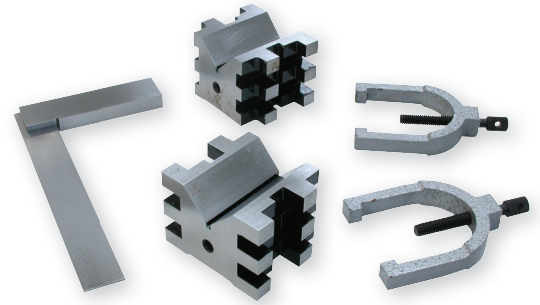
Technical Data

Complete technical specifications available upon request.

Machinist Square
V-Block with Clamp Pair
Multimedia Curriculum (MB727)
Instructor's Guide (CB737)
Installation Guide (DB737)
Student Reference Guide (HB727)
Additional Requirements:
Measurement Tools 1 (96-MES1)
Computer, Requirements: <http://www.amatrol.com/support/computer-requirements/>
Utilities:
None

Hands-On Practice of High Demand Quality Assurance Skills

The Measurement Tools 3 Learning System teaches the high demand skills of dimensioning and tolerancing through a substantial offering of hands-on practice and skill-building activities. Learners engage in skills such as: determining if a rectangular part meets a parallelism tolerance; converting a drawing from conventional tolerancing to position tolerancing; measuring the straightness of a shaft using an indicator; using a small-hole gauge to measure the diameter of a hole; and measuring full indicator movement of a shaft surface. Used in conjunction with the required Measurement Tools 1 Learning System (96-MES1), the 96-MES3 includes a 6" x 4" machinist square and a v-block and clamp set that provides a precision surface for accurately supporting the parts during measurement.

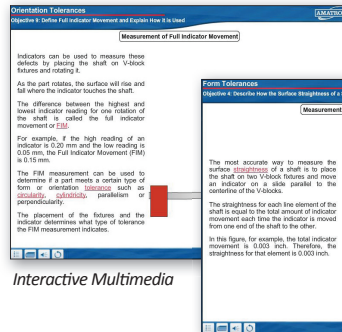


Machinist's Square, V-Block and Clamp Set

Gain Comprehensive Knowledge of Location, Orientation, and Form Tolerances

Amatrol's 96-MES3 curriculum provides a comprehensive education on General Dimensioning & Tolerancing (GD&T), which is a system used to describe tolerances for more complex geometric features. Sample topics include: placing a datum feature symbol on a drawing, describing the reasons why GD&T is used, and using position tolerances for the location of multiple features. After giving learners an overview of GD&T, the curriculum focusses on three main areas: Location Tolerances: Learners will inspect the locations of geometric features, which is a vital quality assurance skill used on a large number of parts made in manufacturing today; Orientation Tolerances: Learners use the 96-MES1's modular and free standing indicator along with 96-MES3 components to measure these tolerances; and Form Tolerances: Learners measure the circularity, cylindricity, and straightness of a shaft using the 96-MES1's indicator.

Stunning, Highly Interactive Multimedia Curriculum



Interactive Multimedia

The 96-MES3's curriculum is presented in a highly interactive multimedia format that features extensive videos, 3D animations, interactive exercises, colorful graphics, and audio narration that will help learners grasp concepts more effectively. This multimedia curriculum provides a logical and complete learning experience that's a perfect instruction tool for today's classroom or for self-paced learning.

Student Reference Guide

A sample copy of Measurement Tools 3 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.

