

LASER SHAFT ALIGNMENT LEARNING SYSTEM 95-ME2-A



CURRICULUM IS THE KEY TO LEARNING

Learning Topics:

- Introduction to Laser Alignment Systems
- Rough Alignment
- Laser Shaft Alignment Installation
- Soft Foot Correction
- Laser Shaft Alignment Operation
- Laser Shaft Alignment Analysis

Laser Shaft Alignment is rapidly gaining popularity in industries throughout the world because it enables maintenance and plant engineering personnel to make quicker and more accurate shaft alignments than other shaft alignment methods such as the dial indicator method or the straight edge and feeler gauge method. Laser shaft alignment systems avoid problems such as sagging indicators, reading resolution error, and reading parallax error. The 95-ME2-A teaches how to setup, operate and apply laser shaft alignment to a variety of industrial applications.

The 95-ME2-A Learning System includes shaft alignment system, laser alignment adapters, motor mount horizontal adjustment assembly, student curriculum for both theory and lab and a teacher's assessment guide. These components add to the Amatrol 950-ME1 and 95-ME2 Mechanical Learning Systems to provide hands-on shaft alignment of real world components.

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DESIGNED FOR LEARNING

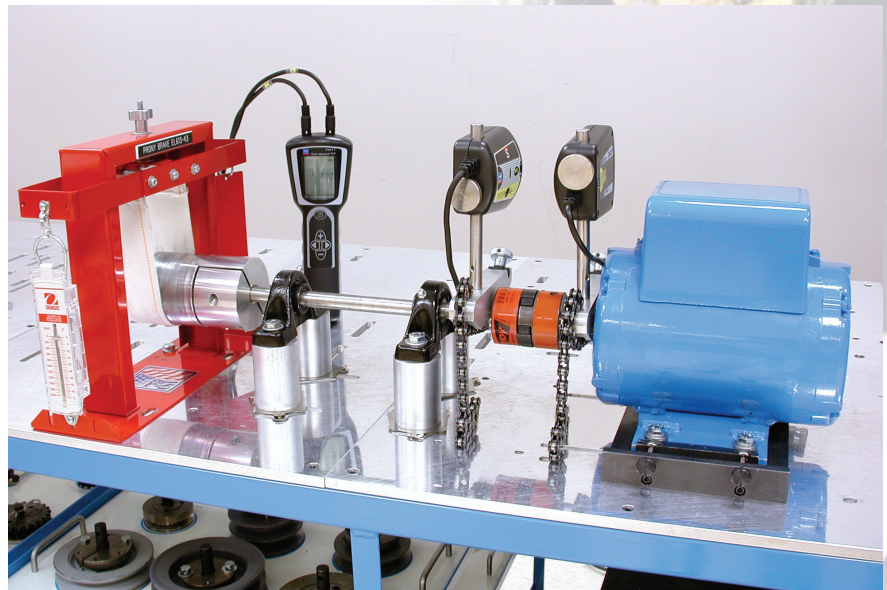


Industrial Quality Components - The 95-ME2-A incorporates an industrial-quality laser shaft alignment system made by a leading manufacturer. The system uses two measuring units that can be easily attached to the shafts using magnetic brackets or chains. Each measuring unit emits a laser line, which is projected on the detector of the other measuring unit. The laser alignment system includes many user friendly features including:

- Simultaneously provides clear real time coupling and feet values during the alignment process making rechecking of the alignment unnecessary
- Soft foot feature is shown on the digital display, which easily guides the operator through this function
- Display unit can be held using one hand, allowing the operator to perform the alignment
- Laser and scale lines for easy detection of the nature of misalignment
- Magnetic brackets allow easy fixture of the measuring units onto the shaft
- Maximum distance of 2.8' between the measuring units
- Uses class II laser, which is safe enough to place a hand in front of the beam without injury

Adds To 950 Series Mechanical Drives Systems - The 95-ME2-A Laser Shaft Alignment Learning System works with the components from the 950-ME1 Mechanical Drives Learning System 1. The 95-ME2-A includes mounting hardware to quickly attach the measuring units to the 950 series trainer shafts, including those used in the many coupling applications. The Laser Shaft Alignment System can then be used to automatically determine the shims needed to align the two shafts.

The precision-machined base mounts directly to the 950-ME1 worksurface and provides a method to precisely make fine corrections to the horizontal position of the motor attached to one of the shafts, allowing the 95-ME2-A Laser Shaft Alignment Learning System to fully use its capability.



TECHNICAL DATA

95-ME2-A Shaft Alignment System

- Laser wave length 670-675 nm
- Laser class 2
- Maximum laser power 1 mW
- Maximum distance between measuring units 2.8'
- Single axis PSD, 8.5 x 0.9 mm (0.3 x 0.4 in.)
- Magnetic and/ or chain fixture
- Battery type 2 x 1,5V LR14 alkaline
- 20 hours continuous operation
- Display resolution 0,01 mm (0.1 mil in " setting)
- Display unit
- Measuring units with spirit levels (2)
- Magnetic/mechanical shaft fixtures (2)
- Locking chains (2)
- Shims (5)
- Measuring tape
- Diode laser

Laser Alignment Adapters (2)

- For use when performing alignments on shafts having a diameter smaller than 1 1/2"

Motor Mount Horizontal Adjustment Assembly

- Provides mounting surface for constant speed motor
- Base plate
- Backup plates (2)
- Flat-head socket head cap screws 5/16-18 x 1 1/2" (4)
- Jack bolts (4)

Student Learning Activity Packet 18433 Teacher's Assessment Guide 18434

Additional Requirements

- 95-ME2 Mechanical Drives 2 Learning System
- Computer with Windows 2000/XP