Roller Pack Machine Tool Axis Learning System

97-ME4-A





Student Reference Guide and Optional eBook

Learning Topics:

- Preload Setting
- Operation
- Installation
- Identification
- Lubrication
- Maintenance & Troubleshooting
- Tapered Gib Adjustment Alignment
- Ways
- Gibs
- Roller-Pack Bearings

Amatrol's Roller-Pack Machine Tool Axis Learning System (97-ME4-A) adds to the Mechanical Drives 1 Learning System (970-ME1) to teach machine tool axis drives based on the roller-pack type bearing. Roller-pack bearings are precision bearings made specifically for the machine tool axis to provide precision positioning of the axis under heavy load. Students will learn industry-relevant skills related to this new topic including operation, installation, troubleshooting, and design.

The 97-ME4-A consists of bench-top industrial machine tool axis with 12 linear roller bearings. The axis is configured an arrangement commonly used by CNC machine tool manufacturers with the same adjustments and methods of maintenance students will see when they are in industry. This machine tool axis adds to the ball screw components of the 97-ME4 to provide fully functional manually operated machine tool axis. Amatrol uses components learners will find on-the-job in order to give the best opportunity to build confidence and industrial competencies.



Technical Data

Complete technical specifications available upon request.

Roller Pack Bearing Assemblies (12) Precision Axis components Student Learning Activity Packet (B19171) Instructor's Guide (C19171) Install Guide (D19171) Student Reference Guide (H19171) Optional eBook (E19171) Requires:

97-ME4 Mechanical Drives 4 and the 970-ME1 Mechanical Drives 1 Learning System

Real-World Training in Operation and Maintenance

The Roller-Pack Machine Tool Axis Learning System uses industrial linear roller bearings, which are designed to handle the high loads encountered in CNC machine tool units and accurately



Components Store Easily in Sliding Drawers

track the axis. The 97-ME4-A includes a precision machine tool axis that uses 12 of the linear roller bearings to provide accurate axis movement, and it is designed so it can be assembled and disassembled in a manner typical of how industrial machine tools are serviced. It is also designed with a full complement of adjustments including gibs, either tapered and flat, for each bearing. With these features students receive real world experience changing bearings and making the critical adjustments necessary to provide precision movement.

World-Class Installation and Operation Curriculum and Hands-On Skills

The Roller-Pack Machine Tool Axis Learning System offers extensive curriculum, which combines strong theoretical knowledge and concepts with immediate hands-on skills. This thorough curriculum is

built to begin with the basics and steadily advance to more complex concepts and skills. Learners study how industry-relevant skills related to this new topic including operation, installation, troubleshooting, and design. As an online option to the Learning Activity Packets (LAPs), the curriculum is also available as an online eBook that looks like a real book and allow users to flip between pages with ease.





Student Reference Guide

A sample copy of the Mechanical Drives Student Reference Guide is also included with the system for your evaluation. Sourced from the system's curriculum, the Student Reference Guide takes the entire series' technical content contained in the learning objectives and combines them into one perfectly-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.



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