

Damper Test System Operation

3 day course

COURSE OUTLINE

- I. Introduction
- II. Damper testing principles & issues
 - A. The damper test market
 - B. Damper test techniques
 - C. Current trends in damper testing
 - D. Damper test solutions
- III. Mechanical aspects of a damper test frame
 - A. Frame & actuator design
 - B. Performance test requirements vs. durability test requirements
 - C. Accumulator sizing
- IV. Damper test software introduction
 - A. Damper software installation
 - B. PC requirements & controller platform requirements
- V. Laboratory damper testing
- VI. Damper test system software
 - A. Damper channel & signal configuration
 - B. Concepts of performance testing
 - C. Concepts of durability testing
 - D. Concepts of temperature sweep testing
 - E. Concepts of sine sweep testing
 - F. Gas & seal friction testing
 - G. Concepts of NVH testing
- VII. Damper test analysis
 - A. Creating a test workbook
 - B. Opening a test workbook
 - C. Data plotting & reporting
- VIII. Example tests
 - A. Create & run a performance test
 - B. Create & run a durability test
 - C. Create & run a temperature sweep test
 - D. Create & run a sine sweep test
 - E. Create & run a NVH test
- IX. More example tests

This course provides you with the fundamentals of damper testing and the use of the MTS Damper Test Software to execute tests in your laboratory. Your trainer will review current testing techniques used in damper test laboratories and emerging techniques for characterizing dampers. To get a feel for the damper test machines and their appropriate use, a few hours are spent discussing test machine design. Considerable time is dedicated to test system software setup, test execution, and analysis. Many examples are used, both in the classroom and in live demonstrations which are discussed at length. Plenty of time is built in for questions and student-requested example tests.

Who should attend

This course is targeted at damper system operators, test engineers, and laboratory managers. If you have an MTS damper test system running under Windows operating software and would like to learn how to get the maximum return from your organization's testing efforts, this course is for you.

Prerequisites

Students should have some test experience prior to attending this course. For students new to servohydraulic testing, we suggest attending the Series 793 Software Operation course prior to taking this class. Students should also have a working knowledge of the Windows operating system and its graphical interface.