

# Gage Training Course Objectives

## Unit 1 | Gage Primer

The purpose of this unit is to develop a fundamental understanding of basic gaging concepts. The rest of the training program builds on these concepts. Upon completion of this unit you will be able to:

- Describe the purpose of measuring and the importance of precise and accurate measurements.
- Define key metrology terms.
- Explain the source of measurement standards and why they are so important.
- Read and interpret basic engineering drawing symbols.
- Understand GD&T terminology and symbols.
- Identify and classify flaws in the finish of a surface.
- Use basic geometry to describe part dimensions.

## Unit 2 | Using Gages

In this unit you will learn the proper way to use a variety of dimensional measurement instruments. Upon completion of this unit you will be able to:

- Use calipers, vernier calipers, micrometers, and vernier micrometers and interpret readings taken with those instruments.
- Measure parts with both height and depth gages.
- Use fixed limit gages and describe the advantages and disadvantages of them.
- Perform measurements with comparative length devices such as test indicators and dial indicators.
- Use gage blocks for establishing dimensional standards as well as describe their qualities and grades.
- Explain the purpose and qualities of surface plates.

## Unit 3 | Gaging Applications

In this unit you will learn how to select the best gage to use for particular measuring situations. Upon completion of this unit you will be able to:

- Specify the best gage to use for a variety of different measuring applications.
- Identify the best way to measure linearity, roundness, and circularity.
- Make sure you don't make any of the most common measuring mistakes.
- Design a measurement process that eliminates or reduces potential measuring complications.
- Properly care for and maintain gages and measuring instruments.