



# Dimensioning and Tolerancing Principles for Gages and Fixtures

A Standard for Engineers Worldwide

## ASME Y14.43-2011

This Standard presents the design practices for dimensioning and tolerancing of gages and fixtures used for the verification of Maximum Material Condition (MMC) size envelopes and Virtual Condition boundaries generated by Geometric Tolerances controlled at Maximum Material Condition (MMC) and datum features controlled at Maximum Material Boundary (MMB).

Most of these practices focus on the design of receiver-type gages, which collect attribute data when used for the verification of workpieces dimensioned and toleranced in accordance with ASME Y14.5-2009. These practices represent examples of product definitions allowed by ASME Y14.5. Since ASME Y14.5 is not a gaging standard, Y14.43 shows the practical embodiment of the theory displayed in Y14.5 by illustrating how the workpieces could be fixtured and gaged for tolerance verification.

**Intended for** design, drafting, mechanical, manufacturing, production, tool/gage, quality, process and project engineers, CAD/CAM/CAE specialists, inspectors and educators across a broad range of global manufacturing. Special emphasis on aerospace, automotive, medical device, precision instrumentation and related industries.

*ASME Y14.43 is a foundational document for the creation of fixed gages that follow the principles of GD&T. In addition to providing four levels of gaging, it gives explanations for each level. The distribution of tolerance between the workpiece and gage is clear and precise.*

*This is an exceptional work that provides over 60 pages of graphics showing over 20 workpieces and their respective gages. Experienced users of GD&T will appreciate the added depth of understanding that is provided by this standard.*

— Jon D. Houck, GDT Professional, Senior Level  
Woodward, Inc.

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