



Specific Accreditation Criteria Calibration ISO/IEC 17025 Annex

Dimensional metrology

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Dimensional metrology

This document provides interpretative criteria and recommendations for the application of ISO/IEC 17025 for both applicant and accredited facilities conducting dimensional metrology.

Applicant and accredited facilities must also comply with ISO/IEC 17025, the NATA ISO/IEC 17025 Standard Application Document (SAD) and the NATA Calibration ISO/IEC 17025 Appendix.

This annex provides additional guidance and recognition of the general requirements that are applicable to all types of measurements in this discipline.

General requirements

The facility must be familiar with the filtering characteristics of the reference instruments they use. The potential loss or distortion of captured information must be considered when selecting filter settings as well as their effect on any time-related phenomena.

Records of these settings must be retained and/or be specified in the calibration or testing procedures.

In roundness measurement, significant differences in results can occur on test items with certain irregularities depending on the filter type and cut-off value selected. Facilities should normally default to a low level of filtering for high quality surfaces (e.g. 1:500 UPR).

Ideally, all measurements will be carried out under static conditions, however in some force measurements where test machines have limited control or creep effects are occurring, different filtering (indicator averaging and update rates) used on the test and reference instruments can introduce errors into the measurements.

Amendment Table

The table below provides a summary of changes made to the document with this issue.

AMENDMENT TABLE	
Section or Clause	Amendment
New document	This document represents a direct adoption of the former Calibration Application Document Appendix C. The document has been reviewed and updated to reflect the new accreditation criteria documentation structure.