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**NATIONAL STANDARD OF THE
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Replacing GB/T 17163-2008

**Glossary of terms for dimensional measuring instruments -
General terms**

几何量测量器具术语 基本术语

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. This document replaces GB/T 17163-2008 "Basic Terminology of Geometric Measurement Apparatus", compared with GB/T 17163-2008, Except for structural adjustments and editorial changes, the main technical changes are shown in Appendix A. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed by China Machinery Industry Federation. This document is under the jurisdiction of the National Standardization Technical Committee of Measuring Tools and Measuring Instruments (SAC/TC132). This document is drafted by: Chengdu Tool Research Institute Co., Ltd., Harbin Institute of Technology, China Jiliang University, Harbin Measuring & Cutting Tool Group Co., Ltd., Zhejiang Institute of Metrology, Jingjiang Measuring Tools Co., Ltd., Shenzhen Institute of Metrology and Quality Inspection, Chengdu Xincheng Quantitative Engineering Co., Ltd. Tools Co., Ltd., Guilin Measuring and Cutting Tools Co., Ltd., Suzhou Micron Measuring Technology Co., Ltd. The main drafters of this document. Huang Jingzhi, Xu Gang, Jiang Zhigang, Zhao Jun, Zhang Wei, Chen Ting, Qin Xiangdong, Wu Peigang, Xu Yan, Zhao Weirong, Huang Xiaobin, He Yixian. This document was first published in 1997 and revised for the first time in 2008. This is the second revision. Basic terminology of geometric measuring instruments

1 Scope

GB/T 17163-2022 is the Chinese national standard on glossary of terms for dimensional measuring instruments - general terms, in the field of metrology and measurement. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 11 July 2022 by the State Administration for Market Regulation; Standardization Administration of China, and has

been in force since 1 February 2023. Classification: ICS 17.040.30, CCS J42. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document defines the general terms of geometric measuring instruments, the terms of measuring instruments, the terms of characteristics of measuring instruments, the measurement standard (reference) technique terms and their definitions. This document applies to the field of geometric measuring instruments and related fields.

2 Normative references

There are no normative references in this document.

3.1.1 Quantities and units

3.1.1.1 quantity A property of a phenomenon, object or substance whose magnitude can be represented by a number and a reference object. Note

- 1.Quantity may refer to the general concept of quantity or specific quantity. Note
- 2.The reference object can be a unit of measurement, measurement procedure, reference material or a combination thereof.

3.1.1.2 geometricalquantity The quantities of position, shape, and size in space in geometry.

3.1.1.3 Quantityvalue valueofaquantity The size of a quantity expressed as a number together with a reference object. Example. Length of given pole. 5.34m or 534cm.

3.1.1.4 The true value of the quantity truequantityvalue; truevalueofquantity truevalue truevalue A quantity that is consistent with the definition of quantity. Note

1.In describing the "error method" about the measurement, the true value is considered to be unique and is actually unknowable. In the "uncertainty method", it is considered that due to the The details of the definition itself are imperfect, and there is no single truth value, but only a set of truth values that are consistent with the definition. However, in principle and in practice, this set of values is unknowable. Other methods dispense with all notions of true value and rely on the notion of metrological compatibility of measurement results to assess the availability of measurement results. effectiveness. Note

2.In this special case of basic constants, the quantity is considered to have a single true value. Note

3.When the defined uncertainty of the measurand is negligible compared with other components of the measurement uncertainty, the measurand is considered to have a

"substantially unique" true value. This is the method adopted by GUM (ISO /IEC Guide98-3.2008) and related documents (JJF1059.1-2012), where the word "true" is considered is redundant. 3.1.1.5

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