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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 17164-2022

Replacing GB/T 17164-2008

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

几何量测量器具术语 产品术语

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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 17164-2008 "Geometric Measurement Apparatus Terminology and Product Terminology", compared with GB/T 17164-2008, 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: China Jiliang University, Chengdu Tool Research Institute Co., Ltd., Chengdu Xincheng Quantity Tools Co., Ltd., Harbin Industrial Technology Co., Ltd. Industrial University, Harbin Measuring & Cutting Tools Group Co., Ltd., Zhejiang Institute of Metrology, and Jingjiang Measuring Tools Co., Ltd. The main drafters of this document. Liu Wei, Zhao Jun, Jiang Zhigang, Xu Gang, Ren Hui, Huang Jingzhi, Zhang Wei, Chen Ting, Qin Xiangdong, He Yixian. This document was first published in 1997 and revised for the first time in 2008. This is the second revision. Geometric measuring instrument term product term

1 Scope

GB/T 17164-2022 is the Chinese national standard on glossary of terms for dimensional measuring instruments - product 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 length measuring instruments, angle measuring instruments, form and position error measuring instruments, surface structure quality measuring instruments, gear measuring instruments Product terms and definitions for geometric measuring instruments such as instruments, thread measuring instruments, other measuring instruments, measuring chains and general-purpose devices and accessories. This document applies to the field of geometric measuring instruments.

2 Normative references

There are no normative references in this document.

3.1.1 Gage

3.1.1.1 gauge block gaugeblock Made of wear-resistant material, the cross-section is rectangular, and has a pair of measuring surfaces parallel to each other.

Note. The measuring surface of the gauge block can be used in combination with the measuring surface of another gauge block, or it can be combined with the surface of the auxiliary body with similar surface quality It is used to measure the length of the gauge block.

3.1.1.2 stepgauge Arrange and clamp a series of dimension measuring blocks and spacers on the base at a certain distance to form a length gauge with a series of dimensions. Physical measuring tools for calibration and inspection.

Note. According to the way of use, it is divided into horizontal step gauge and vertical step gauge; according to step size, it is divided into two types. equal step size and unequal step size.

3.1.1.3 plainlimitgauge It has the maximum limit size and minimum limit size of the hole diameter or shaft diameter as the standard measurement surface, which can reflect the inspection hole or shaft according to the principle of inclusion. Physical Gage for Boundary Conditions. **3.1.1.3.1 Plug gauge** pluggauge A smooth limit gauge for bore diameter inspection, the measuring surface of which is the outer cylindrical surface.

Note. Among them, the diameter of the cylinder with the smallest limit size of the inspected aperture is the hole gauge, and the one with the largest limit size of the inspected aperture is the hole stop gauge. **3.1.1.3.2 ring gauge** The measuring surface is an inner torus surface and is a smooth limit gauge for shaft diameter inspection.

Note. Among them, the ring diameter with the maximum limit size of the tested shaft

diameter is the shaft general gauge, and the one with the minimum limit size of the tested shaft diameter is the shaft stop gauge.

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