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

GB/T 34873-2017

**Vacuum gauges -- Calibration by direct comparison with a
reference gauge**

真空计 与标准真空计直接比较校准

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method identical with ISO 3567:2011 "vacuum gauge and standard vacuum gauge direct comparison and calibration." this standard is proposed by the China Machinery Industry Federation.

This standard by the National Vacuum Technology Standardization Technical Committee (SAC/TC18) centralized.

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1 Scope

This standard specifies the vacuum gauge and the standard vacuum gauge directly compare the calibration to meet the physical, technical and measurement conditions. Pass on these bars the description of the piece can deduce the design of a device that can be used to calibrate a vacuum gauge.

School vacuum gauge can be any type. Many types of gauges consist of several sections, primarily. gauges, cables, instrumentation, and communications no. read the instrument. This whole part can be regarded as a unit to be calibrated. Thus, if only regulatory (ie, the vacuum gauge is directly exposed to true Empty part of the environment) to calibrate, then you can record all the settings and conditions, so that the regulation of the user can use and calibration Measure in the same way.

The standard vacuum gauge is also a calibrated vacuum gauge that is traceable to vacuum primary or national standards (usually) with a compliance GB/T 27025-2008 calibration certificate required or traceable to the SI system and can determine the measurement uncertainty of absolute measurement instruments (A few cases).

This standard on how to deal with a special type of vacuum gauge did not guide, whether it is standard vacuum gauge or gauge, such guidance will be in Available in other standards.

The calibration pressure range discussed in this standard depends on the actual design of the calibration device and the type of standard vacuum gauge. Calibration range at 10-6Pa ~ 110kPa between the changes.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 27025-2008 General Requirements for Testing and Calibration Laboratory Capabilities (ISO/IEC 17025:2005, IDT) ISO/IEC Guide 98-3, Measurement Uncertainty Part 3. Guidance on Measurement Uncertainty (GUM.1995)
[Uncer-taintyofmeasurement-Part 3: Guidetotheexpressionofuncertaintyin measurement (GUM. 1995)]

3 Terms and definitions

The following terms and definitions apply to this document.

The original standard primary standard Measurement standards established using a primary reference measurement procedure.

See ISO/IEC Guide 99:2007, 5.4, as amended.

National standard by the national authority certification, in a country or economy as the same amount of other measurement standards set value measurement standards.

[See ISO/IEC Guide 99:2007, 5.3] 3.3 Reference standard Specify the measurement standard used to calibrate other measurement standards of the same type in the designated organization or designated area.