



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

**GB/T 23537-2021**

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**Super abrasive products - Grinding wheels and mounted points  
with diamond or cubic boron nitride - Limit deviations and  
run-out tolerances**

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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"

Drafting.

This document replaces GB/T 23537-2009 "Super-hard abrasive products diamond or cubic boron nitride grinding wheel and grinding head limit deviation and

"Circular Runout Tolerance", compared with GB/T 23537-2009, the main technical changes are as follows.

- a) The definitions of some terms have been changed (see 3.1.2, 3.1.3, 3.1.3.1, 3.1.3.2, 3.1.2, 3.1.3, 3.1.3.1, 3.1.3.2 of the.2009 edition);
- b) The limit deviation and circle runout tolerance of some dimensions of the peripheral grinding wheel have been changed (see 5.1.2.1~5.1.2.4, 5.1.2.6, 5.1.2.7, 5.1.2.1~5.1.2.4, 5.1.2.6, 5.1.2.7 of the.2009 version);
- c) Partial names of face grinding wheels have been changed (see 5.2.1, 5.2.1 of the.2009

edition);

d) The limit deviation and circle runout tolerance of some dimensions of the face grinding wheel have been changed (see 5.2.2.1, 5.2.2.3, 5.2.2.4,

5.2.2.6, 5.2.2.1, 5.2.2.3, 5.2.2.4, 5.2.2.6 of the.2009 version);

e) The name of the hand-held grinding wheel has been changed (see 7.1, 7.1 of the.2009 edition);

f) The limit deviation of the thickness at the hole of the hand-held grinding wheel has been changed (see 7.2.5, 7.2.4 of the.2009 edition).

This document uses the redrafting method to modify and adopt ISO 22917.2016 ``Precision super-hard abrasive products diamond or cubic boron nitride grinding wheel

Limit deviation and circular runout tolerance of ".

Compared with ISO 22917.2016, this document has technical differences.

The set vertical single line (?) is marked, and a list of the corresponding technical differences and their reasons is given in Appendix A.

This document has made the following editorial changes.

---Modified the standard name.

## 1 Scope

This document specifies the limit deviation of metal bond, ceramic bond and resin bond diamond or cubic boron nitride grinding wheel and grinding head

And circle runout tolerance.

This document applies to metal bond, ceramic bond and resin bond diamond or cubic boron nitride grinding wheels and grinding heads.

This document does not apply to diamond or cubic boron nitride grinding wheels and diamond or cubic boron nitride grinding wheels that have otherwise specified limit deviations and circular runout tolerances in the single product standards.

Grinding head.

## 2 Normative references

The contents of the following documents constitute the indispensable clauses of this document through normative references in the text. Among them, dated quotations

Only the version corresponding to that date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

This document.

GB/T 1800.1 Product Geometric Technical Specification (GPS) Linear Dimension Tolerance  
ISO Code System Part 1.Tolerance, Deviation and

The basis of coordination (GB/T 1800.1-2020, ISO 286-1.2010, MOD)

GB/T 1800.2-2020 Product Geometric Technical Specification (GPS) Linear Dimension  
Tolerance ISO Code System Part 2.Standard

Tolerance zone code and limit deviation table of holes and shafts (ISO 286-2.2010, MOD)

Note. There is no technical difference between the content cited in GB/T 1800.2-2020 and  
the content cited in ISO 286-2.2010.

### 3 Terms and definitions

The following terms and definitions defined in GB/T 1800.1 apply to this document.

#### 3.1

Size

A numerical value that expresses a linear dimension value in a specific unit.

##### 3.1.1

Basic size

Nominal size

By applying the upper and lower deviations (3.2), the size of the limit size (3.1.3) can be  
calculated.

Note. The basic size can be integer or decimal. Such as 32, 15, 8.75, 0.5, etc.

##### 3.1.2

Actual size

The size of the element obtained by measurement.

##### 3.1.3

Limit of size

The two extremes of the allowable size of the size element.

Note. The actual size (3.1.2) is located in it, and it can also reach the limit size.