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

GB/T 5796.4-2022

Trapezoidal screw threads - Part 4: 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" drafted.

This document is part 4 of GB/T 5796 "Trapezoidal Thread". GB/T 5796 has released the following parts.

- Part 1. Tooth type;
- Part 2. Diameter and pitch series;
- Part 3. Basic dimensions;
- Part 4. Tolerances.

This document replaces GB/T 5796.4-2005 "Trapezoidal Threads - Part 4. Tolerances". Compared with GB/T 5796.4-2005, except for the

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

--- Increased the code of the nominal diameter of the internal thread; changed the code of the thread lead (see Chapter 4; 3.2 of the 2005 edition);

--- Changed the position of the left-hand thread code in the thread mark; deleted the parentheses of the thread pitch in the multi-line thread mark (see Chapter 12, Chapter 8 of the 2005 edition).

This document is modified to adopt ISO 2903:2016 "ISO Metric Trapezoidal Thread Tolerances".

The technical differences between this document and ISO 2903:2016 and their reasons are

as follows.

--- Change ISO 5408 from informative reference to normative reference and replace it with GB/T 14791 (see Chapter 3) to make it conform to the national standard.

--- Change the normative references ISO 965-1, ISO 2901 and ISO 2902 to informative references, and use GB/T 197,

GB/T 5796.1 and GB/T 5796.2 are replaced to make it meet the requirements of national standard preparation;

---Increase the code of the medium screw length (see Chapter 4), which is convenient for users to understand the screw length formula;

--- Change the prompts in Table 1, Table 2, Table 3, Table 4, Table 5, Table 6 and Table 7 from declarative clauses to requirement-type clauses (see Chapters 6 to 8

Chapter), clarify the required attributes of these seven tables;

--- Change the "basic major diameter" in the headers of Table 4, Table 5, Table 6 and Table 7 to "nominal diameter", and give the exact value of the code (D and d).

name.

The following editorial changes have been made to this document.

--- Change the file name to "Trapezoidal Thread Part 4.Tolerances";

--- Change the nominal diameter code "d" in formula (12), formula (13) and formula (14) to "D", and the internal thread diameter code is capitalized

letter.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

GB/T 5796 "Trapezoid Thread" consists of 4 parts.

--- Part 1.Tooth shape. It establishes the basic dimension formula of thread diameter for part 3 and part 4 and determines the start of thread tolerance zone

Location provides the technical foundation.

--- Part 2.Diameter and pitch series. It establishes the basic dimension table of thread diameter and determines the thread diameter for part 3 and part 4

The difference table provides a specification basis for nominal diameter and pitch.

--- Part 3.Basic dimensions. It provides a technical basis for determining the limit size of the

thread diameter.

--- Part 4.Tolerances. It provides technical basis for product production and inspection.

The four parts of tooth type, diameter and pitch series, basic dimensions and tolerances constitute the complete technical parameter system of "Trapezoid Thread". put them together

It is convenient for users to find and use within a standard.

Trapezoidal threads part 4.tolerances

1 Scope

This document specifies the tolerances and markings of trapezoidal threads. The diameter and pitch combination series conform to the provisions of GB/T 5796.2.

Compared with the design tooth shape specified in GB/T 5796.1.

This document applies primarily to general-purpose mechanical transmission threads, and may also be used for fastening threads. The tolerance system specified in this document is not suitable

Used for trapezoidal threads that require high precision in axial displacement, such as machine tool screws and precision feed threaded workpieces.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 14791 Thread Terminology (GB/T 14791-2013, ISO 5408.2009, IDT)

3 Terms and Definitions

Terms and definitions defined in GB/T 14791 apply to this document.

4 code

The following codes apply to this document.

D4.Basic major diameter of internal thread;

D. Nominal diameter of internal thread;

D2. Basic pitch diameter of internal thread;

D1. Basic minor diameter of internal thread;

d. basic major diameter of external thread (nominal diameter);

d2. basic pitch diameter of external thread;

d3. basic diameter of external thread;

P. pitch;

Ph. lead;

N. medium twist length group;

L. long twist length group;

IN. medium screwing length;

T. tolerance;

TD2, TD1, Td, Td2, Td3. respectively the inner thread pitch diameter, minor diameter tolerance and the outer thread major diameter, middle diameter, minor diameter tolerance;

EI, ei. lower deviation;

ES, es. upper deviation.