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

GB/T 17395-2024

Replacing GB/T 17395-2008

Dimensions, shapes, masses and tolerances of steel tubes

钢管尺寸、外形、重量及允许偏差

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Foreword

This document was drafted in accordance with the provisions of GB/T 1.1-2020 "Directives for standardization - Part

1.Rules for the structure and drafting of standardizing documents". This document integrates and revises GB/T 17395-2008 "Dimensions, shapes, masses and tolerances of seamless steel tubes" and GB/T 21835-2008 "Dimensions and masses per unit length of welded steel pipes". Compared with GB/T 17395-2008 "Dimensions, shapes, masses and tolerances of seamless steel tubes", in addition to structural adjustments and editorial changes, this document has the following major technical changes.

- a) MODIFY the outer diameter and wall thickness specification table of common steel tubes, and EXPAND the outer diameter and wall thickness specification range (see Table 1 and Table 2 of this document, Table 1 of GB/T 17395-2008);
- b) DELETE the outer diameter series of precision steel tubes (see Table 3 of this document, Table 2 of the 2008 edition);
- c) MODIFY the outer diameter and wall thickness specification table of precision steel tubes, and EXPAND the outer diameter and wall thickness specification range (see Table 3 of this document, Table 2 of GB/T 17395-2008);
- d) MODIFY the outer diameter and wall thickness specification table of stainless steel tubes, and EXPAND the outer diameter and wall thickness specification range (see Table 4

of this document, Table 3 of GB/T 17395-2008);

e) ADD the inner diameter tolerances (see

4.3.3 of this document);

f) ADD the minimum wall thickness tolerances (see

4.3.5 of this document). Compared with GB/T 21835-2008 "Dimensions and masses per unit length of welded steel pipes", in addition to structural adjustments and editorial changes, this document has the following major technical changes.

a) MODIFY the wall thickness series of common steel tubes (see Table 1 and Table 2 of this document, Table 1 of GB/T 21835-2008);

b) MODIFY the outer diameter and wall thickness specification table of common steel tubes, and EXPAND the outer diameter and wall thickness specification range (see Table 1 and Table 2 of this document, Table 1 of GB/T 21835-2008);

c) DELETE the outer diameter series of precision steel tubes (see Table 3 of this document, Table 2 of the 2008 edition);

d) MODIFY the outer diameter and wall thickness specification table of precision steel tubes, and EXPAND the outer diameter and wall thickness specification range (see Table 3 of this document, Table 2 of GB/T 21835-2008);

1 Scope

GB/T 17395-2024 is the Chinese national standard on dimensions, shapes, masses and tolerances of steel tubes, in the field of metallurgy. 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 29 September 2024 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 April 2025. Classification: ICS 77.140.75, CCS H 48. 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 specifies the dimensions, shapes, masses and tolerances of steel tubes. This document applies to the selection of dimension, shape, mass and tolerance when formulating standards for circular steel tubes for various purposes.

2 Normative references

The following referenced documents are indispensable for the application of this document.

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 30062 Terminology of steel pipes and tubes

3 Terms and definitions

For the purpose of this document, the terms and definitions defined in GB/T 30062 apply.

4 Dimension specifications

4.1 Outer diameter series Except for the nominal outer diameter (D) of precision steel tubes, the nominal outer diameters of other steel tubes are divided into three series. Series 1, Series 2 and Series

3. Series 1 is a general series and is recommended; Series 2 is a non-general series; Series 3 is a few special and dedicated series.

4.2 Outer diameter and wall thickness The nominal outer diameter and nominal wall thickness (S) of common steel tubes are shown in Table 1 ($S \leq 65$ mm) and Table 2 ($S > 65$ mm); the nominal outer diameter and nominal wall thickness of precision steel tubes are shown in Table 3; the nominal outer diameter and nominal wall thickness of stainless steel tubes are shown in Table 4.

4.3.1 Selection of outer diameter and wall thickness tolerances

4.3.1.1 The selection of outer diameter and wall thickness tolerances should take into account the purpose of the steel tube and the process equipment for manufacturing the steel tube.

4.3.1.2 The outer diameter and wall thickness tolerances adopted by the product standard should be standardized. Non-standardized or other tolerances can be selected according to user requirements and the particularity of the product.

4.3.2 Outer diameter tolerances

4.3.2.1 The recommended standardized outer diameter tolerances are shown in Table 5.
Table 5 -- Standardized outer diameter tolerances

4.3.2.2 The recommended non-standardized outer diameter tolerances are shown in Table 6.

4.3.2.3 The outer diameter tolerances of special-purpose steel tubes and cold-rolled (drawn) steel tubes can be absolute deviation.

4.3.3 Inner diameter tolerances The recommended standardized inner diameter tolerances are shown in Table 7. Deviation grade Non-standardized outer diameter tolerance

4.3.4 Wall thickness tolerances

4.3.4.1 The recommended standardized wall thickness tolerances are shown in Table 8.

4.3.4.2 The recommended non-standardized wall thickness tolerances are shown in

4.3.4.3 The wall thickness tolerances of special-purpose steel tubes and cold-rolled (drawn) steel tubes can be absolute deviation.

4.3.5 Minimum wall thickness tolerances The recommended standardized minimum wall thickness tolerances are shown in Table 10.

5 Length

5.1 Random length The recommended random length range of steel tubes is 3000 mm ~ 12000 mm.

5.2 Specific length and multiple length The specific length and multiple length are recommended to be selected within the random length range. The recommended specific length and multiple length tolerances Deviation grade Non-standardized wall thickness tolerance Deviation grade Standardized minimum wall thickness tolerance NOTE. S_{min} is the minimum wall thickness of the steel tube. are shown in Table

11. The recommended allowance for each cutting of the multiple length is as follows:

6.1 Curvature

6.1.1 Curvature in total length The recommended curvature in total length requirements are shown in Table 12. Deviation grade Specific length and multiple length tolerance Deviation grade Specific length and multiple length tolerance

6.1.2 Curvature per meter The recommended curvature per meter is shown in Table 13.

7 Mass

7.1 The theoretical weight of steel tubes is calculated according to formula (1).

7.2 For steel tubes delivered by theoretical weight, the tolerance between the actual weight and the theoretical weight of the steel tube may be specified according to the requirements of the purchaser. The recommended tolerance between the actual weight and the theoretical weight of a single steel tube is shown in Table