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

**GB/T 7307-2001**

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**Pipe threads with 55-degree thread angle where pressure-tight  
joints are not made on the threads**  
**(English Translation)**

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### Foreword

This Standard is equivalent to ISO 228-1:1994 "Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation".

The main differences between this Standard and the International standard ISO 228-

#### **1:1994 are. this Standard does not recommend pressure-tight pipe thread pairs (G/R)**

or pressure-tight pipe thread pairs (Rp/G) composed of pressure-tight threads or non-pressure-tight threads. The relevant content in the ISO standard is set up for the customary practices of individual European countries, and there is virtually no mixed pairing of pressure-tight threads or non-pressure-tight threads in other countries.

Compared with GB/T 7307-1987, the main modifications of this standard are as follows.

- DELETE class D internal threads;
- SIMPLIFY the designation method of thread pairs.

From the date of implementation, this Standard replaces GB/T 7307-1987.

This Standard is proposed by State Machinery Industry Bureau.

This Standard is under the jurisdiction of National Technical Committee on Threads of Standardization Administration of China.

Mechanical Science Research Institute is responsible for the drafting of This Standard,

Jiangsu Zhuze Machinery Plant participates in the drafting of this Standard.

Main drafters of this Standard. Li Xiaobin, Zhang Jiansheng.

## ISO Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards (DIS) adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 228-1 was prepared by Technical Committee ISO/TC 5, Ferrous metal pipes and metallic fittings, Subcommittee SC 5, Threaded or plain end butt-welding fittings, threads, gauging of threads.

This third edition cancels and replaces the second edition (ISO 228-1:1982), which has been technically revised.

ISO 228 consists of the following parts, under the general title Pipe threads where pressure-tight joints are not made on the threads.

- Part 1. Dimensions, tolerances and designation
- Part 2. Verification by means of limit gauges

Annex A of Part 1 of ISO 228 is for information only.

Pipe threads with 55 degree thread angle where pressure-tight joints are not made on the threads

## 1 Scope

This Standard specifies the requirements for profiles, dimensions, tolerances and designation for pipe threads with 55 degree thread angle where pressure-tight joints are not made on the threads.

This Standard applies to the threaded connection of pipes, valves, pipe joints, cocks and other pipe accessories.

If this connection requires pressure-tightness. In addition to threads, it shall design pressure-tight surface structures (such as conical surfaces, flat end surfaces, etc.).

Inside the pressure-tight surface it shall add the appropriate pressure-tight medium, and use threads to seal the pressure-tight surface.

## 2 Normative reference

The following normative document contains provisions which, through reference in this Standard, constitute provisions of this Standard. At the time of publication of this Standard, all versions are valid. All standards will be revised, parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the normative document indicated below.

GB/T 14791-1993 The terms of screw threads (neq ISO 5408.1983)

### 3.1 Definitions

The terms of screw threads in this Standard comply with the specifications of GB/T 14791.

### 3.2 Symbols

D - Major diameter of the internal thread;

r - Radius of rounded crests and roots of the thread.

## 4 Designed profiles

The designed profile of cylindrical pipe threads shall comply with the specifications of

## **5 Basic dimensions and their tolerances**

The diameter and their tolerance zones of cylindrical pipe threads are as shown in Figure 2.

**5.1 The basic dimensions of threads' major diameter, pitch diameter and minor diameter** are calculated according to the following equations.

**5.5 For the bottom diameter of internal and external threads, the tolerance class is not** specified.

**5.6 Within the tolerance zone of the top diameter, the rounded crests are allowed to** be flattened.

**5.7 The basic dimensions and the tolerances of cylindrical pipe threads shall comply** with the specifications of Table 1.

**6.1 The designation of cylindrical pipe threads shall consist of the thread description** code, the dimension code and the tolerance class code.

**6.2 For left-hand threads, the tolerance class code of external threads or the dimension** code of internal threads shall be followed by "LH".

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