



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

GB/T 13295-2019

**[Including 2021XG1] Ductile iron pipes, fittings and accessories
for water or gas applications**

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Foreword

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

This Standard replaces GB/T 13295-2013, Ductile iron pipes, fittings and accessories for water or gas applications; compared with GB/T 13295-2013, the major technical changes are as follows.

- Modify the description of some terms and definitions;
- Extend the scope of application of pressure classified pipes to specifications below DN2600;
- Add relevant requirements for ductile iron pipes, DN2800 and DN3000;
- Modify the zinc layer spray weight requirements for pressure classified pipes;
- Add the requirements for the type test of leaktightness of joints to cycle pressure;
- Adjust the wall thickness level of socket tee with single support and socket tee with flanged branch in fittings to K12.

This Standard uses the redraft method to revise and adopt ISO 2531.2009 Ductile iron pipes, fittings, accessories and their joints for water applications.

Compared with ISO 2531.2009, this Standard makes many adjustments in structure.

Appendix A gives a comparison list in chapter numbers between this Standard and ISO 2531.2009.

There are technical differences between this Standard and ISO 2531.2009; the terms which are involved in these differences have been marked by a vertical single line (|) on the outer page margins. Appendix B gives a list of technical differences between this Standard and ISO 2531.2009 and their reasons for reference.

This Standard makes the following editorial changes.

-- Change the standard name to Ductile iron pipes, fittings and accessories for water or gas applications.

This Standard was proposed by China Iron and Steel Industry Association.

This Standard shall be under the jurisdiction of National Technical Committee on Iron and Steel of Standardization Administration of China (SAC/TC 183).

Drafting organizations of this Standard. Xinxing Ductile Iron Pipes Co., Ltd., Saint Gobain Piping System Co., Ltd., China Metallurgical Information and Standardization Institute, Suns Pipelines Company Limited, Anhui Hengsheng Science & Technology Development Group Co., Ltd., North China Municipal Engineering Design & Research Institute Co., Ltd., China Metallurgical Construction Research Institute Co., Ltd.

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The previous version - replaced by this Standard - of the standard is.

-- GB/T 13294-1991;

-- GB/T 13295-1991, GB/T 13295-2003, GB/T 13295-2008, GB/T 13295-2013.

Ductile iron pipes, fittings and accessories for water or gas applications

1 Scope

This Standard specifies the terms and definitions, technical requirements, test methods, dimensions and tolerances, inspection rules and quality certificate for ductile iron pipes, fittings, accessories and their joints for water or gas applications, which are processed by any type of casting process or assembled from cast iron parts; this Standard also gives the type test requirements for joint components.

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 41-2016, Hexagon nuts, style 1 - Product grade C (ISO 4034.2012, MOD)

GB/T 95, Plain washers - Product grade C (GB/T 95-2002, ISO 7091.2000, IDT)

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

Ductile iron castings, other than pipes, which allow for line deflection, direction changes, branching, caliber changes, and joint type changes.

4 Technical requirements

Flanged joints shall be designed to comply with GB/T 17241.6 or ISO 7005-2. Bolts and nuts shall comply, as a minimum, with the requirements of GB/T 5780-2016 and GB/T 41-2016, property class 4.6 and 5 respectively.

5 Leaktightness requirements

The leaktightness of joints to external pressure shall be type tested as specified in 7.3; the joints shall exhibit no visible leakage when subjected to a shear load, expressed in newtons, not less than 30 times the nominal diameter, DN. The test pressure shall be not less than 0.2 MPa.

6 Test methods

The inner diameter is measured by using suitable equipment such as templates and other tools to measure twice at a right angle to each other on the cross section at or above 200 mm from the end face, and calculating the average value of the two measurement results, or by using a go-no-go gauge for inspection.

The straightness is usually visually inspected. In case of dispute, the following method shall be adopted for inspection.

7 Type tests

The test assembly shall consist of two pipes or fittings with flanges of the same