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Restrained joint systems for ductile iron pipelines — Design rules and type testing

Assemblages verrouillés pour canalisations en fonte ductile — Règles de conception et essais de type

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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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Foreword

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This document was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 2, *Cast iron pipes, fittings and their joints*.

This second edition cancels and replaces the first edition (ISO 10804-1:2010), which has been technically revised. The main changes compared to the previous edition are as follows:

— the positive internal pressure type test in the configuration of minimum design radial gap has been introduced for joints restrained by gasket with hard anchor teeth;

— the references and presentation have been reviewed and improved.

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Restrained joint systems for ductile iron pipelines — Design rules and type testing

1 Scope

This document specifies the design rules and type testing for restrained joint systems to be used on ductile iron pipelines complying with ISO 2531 and ISO 7186, in order to determine their mechanical properties and leaktightness.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 6708, *Pipework components — Definition and selection of DN (nominal size)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6708 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1
restrained joint
joint in which a means is provided to prevent separation of the assembled joint

3.2
allowable operating pressure
PFA
maximum internal pressure, excluding surge, which a component can safely withstand in permanent service

3.3
allowable maximum operating pressure
PMA
maximum internal pressure, including surge, which a component can safely withstand in service

3.4
type test
proof-of-design test which is performed once and repeated only after change of design

3.5
allowable angular deflection
angular deflection that a joint between two components can safely withstand in service under the *allowable operating pressure (PFA)* (3.2)

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