
**Fire protection — Automatic sprinkler
systems —**

**Part 12:
Requirements and test methods for
grooved-end components for steel
pipe systems**

*Protection contre l'incendie — Systèmes d'extinction automatiques du
type sprinkler —*

*Partie 12: Exigences et méthodes d'essai pour les raccords de
tuyauterie en acier à extrémités rainurées*



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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 21, *Equipment for fire protection and fire fighting*, Subcommittee SC 5, *Fixed firefighting systems using water*.

This third edition cancels and replaces the second edition (ISO 6182-12:2014), which has been technically revised. The main changes compared to the previous edition are as follows:

— Updated tables on groove dimensions are included.

A list of all the parts in the ISO 6182 series, can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Fire protection — Automatic sprinkler systems —

Part 12:

Requirements and test methods for grooved-end components for steel pipe systems

1 Scope

This document specifies performance requirements, grooving dimensions, test methods and marking requirements for couplings used in the joining of grooved steel tubes, pipes, grooved-end fittings and other grooved-end components up to 300 DN nominal diameter.

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 37, *Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties*

ISO 188, *Rubber, vulcanized or thermoplastic — Accelerated ageing or heat resistance tests*

ISO 898-1:2013, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs*

ISO 898-2:2012, *Mechanical properties of fasteners — Part 2: Nuts with specified proof load values — Coarse thread*

ISO 1083:2018, *Spheroidal graphite cast irons — Classification*

ISO 4200:1991, *Plain end steel tubes, welded and seamless — General tables of dimensions and masses per unit length*

ASTM A47/A47M-99 (2004), *Standard Specification for Ferritic Malleable Iron Castings*

ASTM A183, *Standard Specification for Carbon Steel Track Bolts and Nuts*

ASTM A536-84 (2004), *Standard Specification for Ductile Iron Castings*

ASTM A563-07a, *Standard Specification for Carbons and Alloy Steel Nuts*

ASTM B633-07, *Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel*

ASTM D395-03, *Standard Test Methods for Rubber Property — Compression Set*

EN 12329, *Corrosion protection of metals — Electrodeposited coatings of zinc with supplementary treatment on iron or steel*

3 Terms, definitions and abbreviated terms

3.1 Terms and definitions

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