

# SLOVENSKI STANDARD

## SIST EN ISO 13680:2020

01-september-2020

Nadomešča:

SIST EN ISO 13680:2012

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**Industrija za predelavo nafte in zemeljskega plina - Nevarjeni cevasti izdelki iz korozijsko odpornih zlitin, ki se uporabljajo kot zaščitne, proizvodne in priključne cevi ter pribor - Tehnični dobavni pogoji (ISO 13680:2020)**

Petroleum and natural gas industries - Corrosion-resistant alloy seamless tubular products for use as casing, tubing, coupling stock and accessory material - Technical delivery conditions (ISO 13680:2020)

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Erdöl- und Erdgasindustrie - Nahtlose Rohre aus korrosionsbeständigen Legierungen zur Verwendung als Futter- oder Steigrohre sowie Muffenvorrohre - Technische Lieferbedingungen (ISO 13680:2020) [SIST EN ISO 13680:2020](https://standards.iteh.ai/catalog/standards/sist/9bc62121-00fc-4862-a26d-deb667e3108b/sist-en-iso-13680-2020)

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Industries du pétrole et du gaz naturel - Tubes sans soudure en acier allié résistant à la corrosion utilisés comme tubes de cuvelage, tubes de production et tubes-ébauches pour manchons - Conditions techniques de livraison (ISO 13680:2020)

**Ta slovenski standard je istoveten z: EN ISO 13680:2020**

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**ICS:**

75.180.10	Oprema za raziskovanje, vrtanje in odkopavanje	Exploratory, drilling and extraction equipment
77.140.75	Jeklene cevi in cevni profili za posebne namene	Steel pipes and tubes for specific use

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EUROPEAN STANDARD

EN ISO 13680

NORME EUROPÉENNE

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June 2020

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English Version

**Petroleum and natural gas industries - Corrosion-resistant alloy seamless tubular products for use as casing, tubing, coupling stock and accessory material - Technical delivery conditions (ISO 13680:2020)**

Industries du pétrole et du gaz naturel - Produits tubulaires sans soudure en acier allié résistant à la corrosion utilisés comme tubes de cuvelage, tubes de production, tubes-ébauches pour manchons et matériau pour accessoires - Conditions techniques de livraison (ISO 13680:2020)

Erdöl- und Erdgasindustrie - Nahtlose Rohre aus korrosionsbeständigen Legierungen zur Verwendung als Futter- oder Steigrohre sowie Muffenvorrohre - Technische Lieferbedingungen (ISO 13680:2020)

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**CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels**

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## European foreword

This document (EN ISO 13680:2020) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" the secretariat of which is held by NEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2020, and conflicting national standards shall be withdrawn at the latest by December 2020.

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**Petroleum and natural gas  
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and accessory material — Technical  
delivery conditions**

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*Industries du pétrole et du gaz naturel — Produits tubulaires sans  
soudure en acier allié résistant à la corrosion utilisés comme tubes  
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## Foreword

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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](http://www.iso.org/directives)).

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This document was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 5, *Casing, tubing and drill pipe*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 13680:2010), which has been technically revised. The main changes compared to the previous edition are as follows:

- change of title and scope so that it includes accessory material and group 5;
- deletion of [Annex E](#);
- addition of new [Annex F](#), [Annex H](#) and [Annex I](#);
- update of warning statement;
- complete revision of the technical content.

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](http://www.iso.org/members.html).

**ISO 13680:2020(E)****Introduction**

Users of this document should be aware that further or differing requirements can be needed for individual applications. This document is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This is particularly relevant to innovative or developing technology. Where an alternative is offered, it is the responsibility of the vendor to identify any variations from this document and provide details.

In this document, the following verbal forms are used:

- a) “shall” indicates a requirement;
- b) “should” indicates a recommendation;
- c) “may” indicates a permission;
- d) “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated requirement. “Notes to entry” used in [Clause 3](#) provide additional information that supplements the terminological data and can contain provisions relating to the use of a term.

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# Petroleum and natural gas industries — Corrosion-resistant alloy seamless tubular products for use as casing, tubing, coupling stock and accessory material — Technical delivery conditions

**WARNING** — It is the purchaser's responsibility to specify the product specification level (PSL), corrosion-resistant alloy (CRA) group, category, grade, delivery conditions and any other requirement in addition to those specified herewith to ensure that the product is adequate for the intended service environment. The ISO 15156 series should be considered when making specific requirements for H<sub>2</sub>S-containing environment; see [Annex G](#). Other variables which can contribute to hydrogen embrittlement should be considered. There are other sources of hydrogen besides H<sub>2</sub>S containing environments, which are not addressed by the ISO 15156 series.

## 1 Scope

This document specifies the technical delivery conditions for corrosion-resistant alloy seamless tubular products for casing, tubing, coupling stock and accessory material (including coupling stock and accessory material from bar) for two product specification levels:

- PSL-1, which is the basis of this document;
- PSL-2, which provides additional requirements for a product that is intended to be both corrosion and cracking resistant for the environments and qualification method specified in [Annex G](#) and in the ISO 15156 series.

At the option of the manufacturer, PSL-2 products can be provided in lieu of PSL-1.

**NOTE 1** The corrosion-resistant alloys included in this document are special alloys in accordance with ISO 4948-1 and ISO 4948-2.

**NOTE 2** For the purpose of this document, NACE MR0175 is equivalent to the ISO 15156 series.

**NOTE 3** Accessory products can be manufactured from coupling stock and tubular material, or from solid bar stock or from bored and heat-treated bar stock as covered in [Annex F](#).

This document contains no provisions relating to the connection of individual lengths of pipe.

This document contains provisions relating to marking of tubing and casing after threading.

This document is applicable to the following five groups of products:

- a) group 1, which is composed of stainless alloys with a martensitic or martensitic/ferritic structure;
- b) group 2, which is composed of stainless alloys with a ferritic-austenitic structure, such as duplex and super-duplex stainless alloy;
- c) group 3, which is composed of stainless alloys with an austenitic structure (iron base);
- d) group 4, which is composed of nickel-based alloys with an austenitic structure (nickel base);
- e) group 5, which is composed of bar only ([Annex F](#)) in age-hardened (AH) nickel-based alloys with austenitic structure.

**NOTE 4** Not all PSL-1 categories and grades can be made cracking resistant in accordance with the ISO 15156 series and are, therefore, not included in PSL-2.