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Oil and gas industries including lower carbon energy - Equipment for well cementing - Part 1: Casing bow-spring centralizers (ISO 10427-1:2024)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/24

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Supersedes EN ISO 10427-1:2001

English Version

Oil and gas industries including lower carbon energy - Equipment for well cementing - Part 1: Casing bow-spring centralizers (ISO 10427-1:2024)

Industries du pétrole et du gaz, y compris les énergies à faible teneur en carbone - Équipement de cimentation de puits - Partie 1: Centreurs de tubes de cuvelage (ISO 10427-1:2024)

Öl- und Gasindustrie einschließlich kohlenstoffarmer Energieträger - Ausrüstung für die Zementation von Tiefbohrungen - Teil 1: Federkorb-Zentrierer für Futterrohre (ISO 10427-1:2024)

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN ISO 10427-1:2024) has been prepared by Technical Committee ISO/TC 67 "Oil and gas industries including lower carbon energy" in collaboration with Technical Committee CEN/TC 12 “Oil and gas industries including lower carbon energy” 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of an identical text or by endorsement, at the latest by March 2025, and conflicting national standards shall be withdrawn at the latest by March 2025.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 10427-1:2001.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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Endorsement notice

The text of ISO 10427-1:2024 has been approved by CEN as EN ISO 10427-1:2024 without any modification.

International Standard

ISO 10427-1

Oil and gas industries including lower carbon energy — Equipment for well cementing —

Part 1: Casing bow-spring centralizers

Industries du pétrole et du gaz, y compris les énergies à faible teneur en carbone — Équipement de cimentation de puits —

Partie 1: Centreurs de tubes de cuvelage

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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 document 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 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 3, *Drilling and completion fluids, well cements and treatment fluids,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Oil and gas industries including lower carbon energy,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 10427-1:2001), which has been technically revised.

This document supplements API Spec 10D, 7th edition (2021).

The technical requirements of this document and API Spec 10D used to be identical. In the meantime, API Spec 10D has been technically revised as API Spec 10D, 7th edition (2021). The purpose of this edition of ISO 10427-1 is to bring it up to date, by referencing the current edition of API Spec 10D and including supplementary content.

The main changes compared to the previous edition are as follows:

— specification for the use of an unpainted centralizer in the running force test;

— specification for compensation of mass in the running force test;

— measurement of the centralizer maximum diameter after open hole test;

— definition of centralizer rigid OD;

— specification for the order of test.

A list of all parts in the ISO 10427 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.

International Standard **ISO 10427-1:2024(en)**

Oil and gas industries including lower carbon energy — Equipment for well cementing —

Part 1: Casing bow-spring centralizers

1 Scope

This document specifies testing, performance, and marking requirements for casing bow-spring centralizers to be used in oil and natural gas well construction. The procedures give guidance on verification testing for the manufacturer's design, materials, and process specifications, and periodic testing to confirm the consistency of product performance. This specification is not applicable to other devices, such as rigid centralizers and cement baskets, or bow-spring centralizers used for other purposes (e.g., wireline tools, gravel pack, inner string).

This document is a supplement to API Spec 10D 7th edition (2021), the requirements of which are applicable with the exceptions specified in this document.

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.

API Spec 10D, *7th edition (2021), Casing Bow-spring Centralizers*