



**SLOVENSKI STANDARD**  
**SIST EN ISO 10427-1:2004**

**01-maj-2004**

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**Petroleum and natural gas industries - Casing centralizers - Part 1: Bow-spring casing centralizers (ISO 10427-1:2001)**

Petroleum and natural gas industries - Casing centralizers - Part 1: Bow-spring casing centralizers (ISO 10427-1:2001)

Erdöl- und Erdgasindustrie - Zentriereinrichtungen für Futterrohre - Teil 1: Federkorb-Zentrierer für Futterrohre (ISO 10427-1:2001)

Industries du pétrole et du gaz naturel - Centreurs de tubes - Partie 1: Centreurs de tubes de cuvelage (ISO 10427-1:2001)

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**Ta slovenski standard je istoveten z: EN ISO 10427-1:2001**

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**ICS:**

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 10427-1**

October 2001

ICS 07.018.10

English version

**Petroleum and natural gas industries - Casing centralizers - Part  
1: Bow-spring casing centralizers (ISO 10427-1:2001)**

Industries du pétrole et du gaz naturel - Centreurs de tubes  
- Partie 1: Centreurs de tubes de couvelage (ISO 10427-  
1:2001)

Erdöl- und Erdgasindustrie - Zentriereinrichtungen für  
Futterrohre - Teil 1: Federkorb-Zentrierer für Futterrohre  
(ISO 10427-1:2001)

This European Standard was approved by CEN on 1 October 2001.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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EN ISO 10427-1:2001 (E)

<b>CORRECTED 2002-09-25</b>
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## Foreword

This document (EN ISO 10427-1:2001) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum and natural gas industries", the secretariat of which is held by AFNOR.

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 April 2002, and conflicting national standards shall be withdrawn at the latest by April 2002.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

### Endorsement notice

The text of ISO 10427-1:2001 has been approved by CEN as EN ISO 10427-1:2001 without any modifications.

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# INTERNATIONAL STANDARD

# ISO 10427-1

First edition  
2001-10-01

Corrected version  
2003-10-01

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## Petroleum and natural gas industries — Equipment for well cementing —

### Part 1: Casing bow-spring centralizers

*Industries du pétrole et du gaz naturel — Équipement de cimentation de puits —*  
*Partie 1: Centreurs de tubes de cuvelage*

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**ISO 10427-1:2001(E)****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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this part of ISO 10427 may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 10427-1 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 3, *Drilling and completion fluids, and well cements*.

This first edition of ISO 10427-1 cancels and replaces, in part, the first edition of ISO 10427 (ISO 10427:1993), which has been technically revised.

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ISO 10427 consists of the following parts, under the general title *Petroleum and natural gas industries — Equipment for well cementing*:

- *Part 1: Casing bow-spring centralizers*
- *Part 2: Centralizer placement and stop-collar testing*
- *Part 3: Performance testing of cementing float equipment*

Annex A of this part of ISO 10427 is for information only.

This corrected version of ISO 10427-1:2001 has undergone a title change to align with ISO 10427-2 and ISO 10427-3.



## Introduction

This part of ISO 10427 is based on API Specification 10D, 5th edition, January 1995.

Users of this part of ISO 10427 should be aware that further or differing requirements may be needed for individual applications. This part of ISO 10427 is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This may be particularly applicable where there is innovative or developing technology. Where an alternative is offered, the vendor should identify any variations from this part of ISO 10427 and provide details.

In this part of ISO 10427, where practical, U.S. Customary units are included in brackets after SI units for information.

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# Petroleum and natural gas industries — Equipment for well cementing —

## Part 1: Casing bow-spring centralizers

### 1 Scope

This part of ISO 10427 provides minimum performance requirements, test procedures and marking requirements for casing bow-spring centralizers for the petroleum and natural gas industries. The procedures provide verification testing for the manufacturer's design, materials and process specifications, and periodic testing to confirm the consistency of product performance.

This part of ISO 10427 is not applicable to rigid or positive centralizers.

### 2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this part of ISO 10427. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 10427 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 11960, *Petroleum and natural gas industries — Steel pipes for use as casing or tubing for wells*

### 3 Terms and definitions

For the purposes of this part of ISO 10427, the following terms and definitions apply.

#### 3.1

##### **flexed**

condition of a bow spring when a force three times the specified minimum restoring force ( $\pm 5\%$ ) has been applied to it

#### 3.2

##### **holding device**

device employed to fix the stop collar or centralizer to the casing

EXAMPLES Set screws, nails, mechanical dogs and epoxy resins.

#### 3.3

##### **holding force**

maximum force required to initiate slippage of a stop collar on the casing

#### 3.4

##### **hole size**

diameter of the wellbore