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Petroleum and natural gas industries — Bow-spring casing centralizers — Specification

*Industries du pétrole et du gaz naturel — Centreurs de tubes de
cuvelage — Spécifications*



Reference number
ISO 10427:1993(E)

Foreword

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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.

International Standard ISO 10427 was prepared by the American Petroleum Institute (API) (as Spec 10D, 4th edition) and was adopted, under a special "fast-track procedure", by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum and natural gas industries*, in parallel with its approval by the ISO member bodies.

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Introduction

International Standard ISO 10427:1993 reproduces the content of API Spec 10D, 4th edition, 1991. ISO, in endorsing this API document, recognizes that in certain respects the latter does not comply with all current ISO rules on the presentation and content of an International Standard. Therefore, the relevant technical body, within ISO/TC 67, will review ISO 10427:1993 and reissue it, when practicable, in a form complying with these rules.

This standard is not intended to obviate the need for sound engineering judgement as to when and where this standard should be utilized and users of this standard should be aware that additional or differing requirements may be needed to meet the needs for the particular service intended.

Standards referenced herein may be replaced by other international or national standards that can be shown to meet or exceed the requirements of the referenced standards.

Appendix A to this document should not be considered as requirements. It is included only as information.

<https://standards.iteh.ai/en/ISO-10427-1993/ISO-10427-1993-4d6a-a1e0-372Be520478/iso-10427-1993>

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Petroleum and natural gas industries — Bow-spring casing centralizers — Specification

1 Scope

This International Standard specifies testing procedures to verify the manufacturer's design, the materials and process for the construction of bow-spring casing centralizers other than of the rigid or positive types.

2 Requirements

Requirements are specified in:

"API Specification 10D (Spec 10D), Fourth Edition, January 1, 1991 — *Specification for Bow-Spring Casing Centralizers*",

which is adopted as ISO 10427.

For the purposes of international standardization, however, modifications shall apply to specific clauses and paragraphs of publication API Spec 10D. These modifications are outlined below.

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Foreword, item d)

Throughout publication API Spec 10D, the conversion of English units shall be made in accordance with ISO 31. In particular,

LENGTH	1 inch (in)	= 25,4 mm (exactly)
	1 foot (ft)	= 304,8 mm or 0,304 8 m (exactly)
MASS	1 pound (lb)	= 0,453 592 37 kg (exactly)
FORCE	1 pound-force (lbf)	= 4,448 222 N
	NOTE 1 kgf = 9,806 65 N (exactly)	
LINEIC MASS		
LINEAR DENSITY	1 pound per inch (lb/in)	= 17,857 967 kg/m
	or 1 pound per foot (lb/ft)	= 1,488 163 9 kg/m
STRENGTH OR STRESS	1 pound-force per square inch (lbf/in ²)	= 6,894,757 Pa

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Information given in the POLICY is relevant to the API publication only.

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Subclause 4.4, item a

Publication API Spec 5CT referenced therein is available under the following ISO reference:

ISO 11960 (at present under study).

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Section 7, **Marking**

The specifications of section 7 may be used on a provisional basis. In the future edition of this International Standard, marking should comply with the provisions of annex E of the ISO/IEC Directives, part 2.

item d. Example

The NOTE is relevant to the API publication only.

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Specification for Bow-Spring Casing Centralizers

API SPECIFICATION 10D (SPEC 10D)
FOURTH EDITION, JANUARY 1, 1991

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Foreword

a) This specification is under the jurisdiction of the Committee on Standardization of Well Cements.

b) The purpose of this specification is to provide minimum performance standards, test procedures and marking requirements for bow-spring casing centralizers.

c) The requirements contained herein are limited but are deemed adequate for use in oilfield cementing operations.

d) Conversions of U.S. Customary units* to International System (S.I.) metric units are provided throughout the text of this specification in parentheses, e.g. 916 ft. (279 m.). S.I. Equivalents have also been included in all tables. U.S. Customary units are preferential and shall be the standard in this specification. The metric equivalents of U.S. Customary units given in the body of the standard and in the appendix may be approxi-

*U.S. Customary Units — Units based upon the foot and the pound commonly used in the United States of America and defined by the National Bureau of Standards.

mate. Note use of period instead of comma for decimal point in metric values, e.g. 25.4 mm. instead of 25,4 mm.

The factors used for conversion of U.S. Customary units to metric values in this specification are:

1 inch (in) = 25.4 millimeters (mm)
 1 foot (ft) = 0.3048 meter (m)
 1 pound (lb) = 0.454 kilogram (kg)
 1 pound force (lbf) = 4.448222 Newton (N)
 1 pound per foot (lb/ft) = 14.594 Newton per meter (N/m)

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Note

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