INTERNATIONAL STANDARD

ISO 10423

Fifth edition
2022-03

Petroleum and natural gas industries — Drilling and production equipment — Wellhead and tree equipment

Industries du pétrole et du gaz naturel — Équipement de forage et de production — Équipement pour têtes de puits et arbres de Noël

Reference number
ISO 10423:2022(E)

© ISO 2022



COPYRIGHT PROTECTED DOCUMENT

© ISO 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

© ISO 2022 – All rights reserved

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative references **1**
3 Terms and definitions **1**
4 Supplements to API Spec 6A, 21st edition (2018) **1**
4.1 General requirements 1
4.2 Closure bolting 2
4.3 Fittings and pressure boundary penetrations 2
4.4 Chokes 2
4.5 Wellhead equipment data sheet – General 3
4.6 Typical wellhead and tree configurations 3
Bibliography **4**

© ISO 2022 – All rights reserved

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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries,* Subcommittee SC 4 *Drilling and production equipment,* 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 fifth edition cancels and replaces the fourth edition (ISO 10423:2009), which has been technically revised.

This document supplements API Spec 6A, 21st edition (2018).

The technical requirements of this document and API Spec 6A used to be identical. In the meantime API Spec 6A has been technically revised as API Spec 6A, 21st edition (2018). The purpose of this edition of ISO 10423 is to bring it up to date, by referencing the current edition of API Spec 6A and including supplementary content.

The main change are as follows:

— full reorganization of the document;

— supplementary requirements for closure bolting, fittings and pressure boundary penetrations, wellhead equipment data sheet, and typical wellhead and tree configurations.

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.

© ISO 2022 – All rights reserved

Introduction

Users of this document are informed 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 can be particularly applicable where there is innovative or developing technology. Where an alternative is offered, the vendor needs to identify any variations from this document and provide details.

© ISO 2022 – All rights reserved

Petroleum and natural gas industries — Drilling and production equipment — Wellhead and tree equipment

1 Scope

This document specifies requirements and gives recommendations for the performance, dimensional and functional interchangeability, design, materials, testing, inspection, welding, marking, handling, storing, shipment, and purchasing of wellhead and tree equipment for use in the petroleum and natural gas industries.

This document does not apply to field use or field testing.

This document does not apply to repair of wellhead and tree equipment except for weld repair in conjunction with manufacturing.

This document does not apply to tools used for installation and service (e.g. running tools, test tools, wash tools, wear bushings, and lubricators).

This document supplements API Spec 6A, 21st edition (2018), 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 6A, 21st edition (2018), *Specification for Wellhead and Tree Equipment*

ISO 13628-4:2010, *Petroleum and natural gas industries — Design and operation of subsea production systems — Part 4: Subsea wellhead and tree equipment*

ISA 75.01.01, *Industrial-process control valves, Part 2-1: Flow capacity – Sizing equations for fluid flow under installed conditions*

ISA 75.02.01, *Control valve capacity test procedure*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in API Spec 6A, 21st edition (2018) apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Supplements to API Spec 6A, 21st edition (2018)

4.1 General requirements

The requirements specified in API Spec 6A, 21st edition (2018) shall apply, with the additions and exceptions specified in 4.2 to 4.6.

© ISO 2022 – All rights reserved