Specification for Wellhead and Christmas Tree Equipment

ANSI/API SPECIFICATION 6A
TWENTIETH EDITION, OCTOBER 2010

EFFECTIVE DATE: APRIL 1, 2011

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CONTAINS API MONOGRAM ANNEX AS PART OF U.S. NATIONAL ADOPTION

ISO 10423:2009 (Modified), Petroleum and natural gas industries—Drilling and production equipment—Wellhead and christmas tree equipment

AMERICAN PETROLEUM INSTITUTE

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Upstream Segment

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Suggested revisions are invited and should be submitted to the Standards Department, API, 1220 L Street, NW, Washington, DC 20005, standards@api.org.

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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 document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 10423 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*.

This fourth edition cancels and replaces the third edition (ISO 10423:2003), which has been technically revised.

Introduction

This International Standard, which has been technically revised, is based on API Spec 6A, nineteenth edition, July 2004 and its addendums and errata, and API Spec 6AV1, first edition, February 1996 and its errata, with the intent that the twentieth edition of API Spec 6A will be identical to this International Standard.

The International System of units (SI) is used in this International Standard. However, nominal sizes are shown as fractions in the inch system.

The fractions and their decimal equivalents are equal and interchangeable. Metric conversions and inch dimensions in this International Standard are based on the original fractional inch designs. Functional dimensions have been converted into the metric system to ensure interchangeability of products manufactured in metric or inch systems; see also Annex B.

Tables referenced in the main body of this International Standard that are marked with an asterisk (*) are repeated in Annex B in US Customary (USC) units with the same table number as in the main body but with the prefix B. In figures where dimensions are given only in inches, the values of surface roughness have been indicated in accordance with US draughting conventions.

It is necessary that users of this International Standard be aware that further or differing requirements can be needed for individual applications. This International Standard 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, it is the responsibility of the vendor to identify any variations from this International Standard and provide details.

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

1 Scope

1.1 Purpose

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

This International Standard does not apply to field use, field testing or field repair of wellhead and christmas tree equipment.

1.2 Applicability

This International Standard is applicable to the following specific equipment:

a) wellhead equipment:

- casing-head housings,
- casing-head spools,
- tubing-head spools,
- cross-over spools,
- multi-stage head housings and spools;

b) connectors and fittings:

- cross-over connectors,
- tubing-head adapters,
- top connectors,
- tees and crosses,
- fluid-sampling devices,
- adapter and spacer spools;

c) casing and tubing hangers:

- mandrel hangers,