# **INTERNATIONAL STANDARD**



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# Ships and marine technology — Flange connection for fuel and lubrication oil bunkering — Basic dimensions and A tech. technical requirements



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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 documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2.

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.

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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 <u>www.iso.org/</u> iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 8, *Ships and marine technology*, Subcommittee SC 3, *Piping and machinery*.

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 <u>www.iso.org/members.html</u>.

# Ships and marine technology — Flange connection for fuel and lubrication oil bunkering — Basic dimensions and technical requirements

### 1 Scope

This document specifies the basic dimensions of PN 10 flanged connections for bunker fuel and lubricating oil transfer to ships from bunkering vessels or onshore facilities, and the technical requirements for the design of such connections.

This document is not applicable to connections of the ship's fuel system for the reception of liquefied natural gas.

#### 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.

ISO 4014, Hexagon head bolts — Product grades A and B

ISO 4032, Hexagon regular nuts (style 1) — Product grades A and B

ISO 7005-1, Pipe flanges — Part 1: Steel flanges for industrial and general service piping systems

ISO 7091, Plain washers — Normal series — Product grade C

ISO 7483, Dimensions of gaskets for use with flanges to ISO 7005

#### 3 Terms and definitions

No terms and definitions are listed in this document.

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

- ISO Online browsing platform: available at <a href="https://www.iso.org/obp">https://www.iso.org/obp</a>
- IEC Electropedia: available at <u>http://www.electropedia.org/</u>

#### 4 Classification

- 4.1 The flange connections are classified as follows depending on the medium:
- Type F flange connections for bunker fuel reception;
- Type L flange connections for lubricating oil reception.
- **4.2** The flange connections are classified as follows depending on the execution (arrangement):
- Execution 1 blind flange without handle;
- Execution 2 blind flange with one handle;
- Execution 3 blind flange with two handles.