

Second edition
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Pipe flanges —

Part 1:

Steel flanges for industrial and general service piping systems

Brides de tuyauteries —

Partie 1: Brides en acier pour systèmes de canalisations industrielles et d'utilisation générale



Reference number
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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 7005-1 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 10, *Metallic flanges and their joints*.

This second edition cancels and replaces the first edition (ISO 7005-1:1992), which has been technically revised.

ISO 7005 consists of the following parts, under the general title *Pipe flanges*:

— *Part 1: Steel flanges for industrial and general service piping systems*

It also consists of the following parts, under the general title, *Metallic flanges*:

— *Part 2: Cast iron flanges*

— *Part 3: Copper alloy and composite flanges*

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Introduction

This part of ISO 7005 makes normative reference to a family of two distinct steel flange series, each of which has sectorial relevance in noteworthy global marketplaces. Each is widely used within these regional entities. Each of these individual flange series, taken separately, represents a very large installed flange population and as such, it is not an economically viable option to compel replacement with a single flange series.

The steel flange harmonization specified in the previous edition did not achieve the anticipated market acceptance. This can be attributed firstly to the fact that this part of ISO 7005 has not, prior to this revision, been updated and, secondly, that this part of ISO 7005 lacked normative requirements for many materials and their corresponding pressure/temperature ratings. In addition, dimensional compromises made during the drafting of the previous edition have not been acknowledged in important market sectors. While this part of ISO 7005 remained unchanged for many years, sectorial flange standards have kept pace and by doing so maintained market prominence. With this revision, normative reference requirements are added for the two most prominent sectorial flange series, each endowed with significant market presence.

The revision of this part of ISO 7005 is intended to more readily accommodate and expand regional and national standardization needs by providing ready access to a sectorial series whose requirements are contemporaneous with regional imperatives.