



BSI Standards Publication

Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN designated

Part 2: Cast iron flanges

This is a preview of BS EN 1092-2:2023. [Click here to purchase the full version from the ANSI store.](#)

National foreword

This British Standard is the UK implementation of EN 1092-2:2023. It supersedes BS EN 1092-2:1997, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/15, Flanges.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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EUROPÄISCHE NORM

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English Version

Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 2: Cast iron flanges

Brides et leurs assemblages - Brides circulaires pour tuyaux, appareils de robinetterie, raccords et accessoires, désignées PN - Partie 2 : Brides en fonte

Flansche und ihre Verbindungen - Runde Flansche für Rohre, Armaturen, Formstücke und Zubehörteile, nach PN bezeichnet - Teil 2: Gußeisenflansche

This European Standard was approved by CEN on 22 October 2023.

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This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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European foreword

This document (EN 1092-2:2023) has been prepared by Technical Committee CEN/TC 74 “Flanges and their joints”, the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 1092-2:1997.

In comparison with the previous edition, the following technical modifications have been made:

- update of normative references;
- introduction of new DN and PN;
- specification regarding repairs and face finish.

EN 1092 will consist of the following four parts:

- Part 1: Steel flanges;
- Part 2: Cast iron flanges;
- Part 3: Copper alloy flanges;
- Part 4: Aluminium alloy flanges.

This document is related to ISO 7005-2:1988 and ISO 2531:2009, as types of flanges and their mating dimensions are compatible with those flanges of the same DN and PN.

The mating dimensions of the flanges of this document are compatible with those flanges of other materials in accordance with the other parts of EN 1092 series.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

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Introduction

Materials that are in permanent or temporary contact with drinking water are not detrimental to the quality of the drinking water and do not violate EC Directives or EFTA regulations concerning the quality of drinking water.

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1 Scope

This document specifies requirements for circular flanges made from ductile, grey and malleable cast iron for DN 10 to DN 4000 and PN 2,5 to PN 100.

NOTE See 4.1 and 4.2 for information regarding allowed DN and PN.

This document specifies the types of flanges and their facings, dimension and tolerances, bolt sizes, surface finish of jointing faces, marking, testing, quality assurance and materials together with associated pressure/temperature (p/T) ratings.

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.

EN 545:2010, *Ductile iron pipes, fittings, accessories and their joints for water pipelines - Requirements and test methods*

EN 1092-1:2018, *Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, PN designated - Part 1: Steel flanges*

EN 1370:2012, *Founding — Examination of surface condition*

EN 1561:2011, *Founding - Grey cast irons*

EN 1563:2018, *Founding - Spheroidal graphite cast irons*

EN ISO 4287:2005, *Geometrical product specifications (GPS) — Surface texture: Profile method — Terms, definitions and surface texture parameters (ISO 4287)*

ISO 185:2005, *Grey cast irons — Classification*

ISO 887:2000, *Plain washers for metric bolts, screws and nuts for general purposes — General plan*

ISO 1083:2018, *Spheroidal graphite cast irons — Classification*

ISO 5922:2005, *Malleable cast iron*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

- IEC Electropedia: available at <https://www.electropedia.org/>
- ISO Online browsing platform: available at <https://www.iso.org/obp>

3.1

flange

flat circular end of a pipe component extending perpendicular to its axis, with bolt holes equally spaced on a circle

NOTE 1 to entry: See Figure 1.

NOTE 2 to entry: A flange can be fixed (i.e. integrally cast, screwed or welded on) or adjustable; an adjustable flange comprises a ring, in one or several parts assembled together, which bears on an end joint hub and can be freely rotated around the pipe axis before jointing.