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Flanges and their joints - Design rules for gasketed circular flange connections - Part 2: Gasket parameters

Táto technická normalizačná informácia obsahuje anglickú verziu CEN/TR 1591-2:2020.  
This Technical standard information includes the English version of CEN/TR 1591-2:2020.

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Supersedes EN 1591-2:2008

English Version

## Flanges and their joints - Design rules for gasketed circular flange connections - Part 2: Gasket parameters

Brides et leurs assemblages - Règles de calcul des  
assemblages à brides circulaires avec joint - Partie 2 :  
Paramètres de joint

Flansche und ihre Verbindungen - Regeln für die  
Auslegung von Flanschverbindungen mit runden  
Flanschen und Dichtung - Teil 2: Dichtungskennwerte

This Technical Report was approved by CEN on 10 February 2020. It has been drawn up by the Technical Committee CEN/TC 74.

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

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## European foreword

This document (CEN/TR 1591-2:2020) has been prepared by Technical Committee CEN/TC 74 “Flanges and their joints”, the secretariat of which is held by DIN.

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 1591-2:2008.

The major changes in comparison with EN 1591-2:2008 include:

- The introduction of the creep parameter  $\Delta e_{Gc}$ ;
- The introduction of the compressed gasket thickness measured during compression phase  $e_G$ ;
- The removal of  $E_G$  and  $e_G$  results tables for the gasket codes K04, E02, G02, A02, G01, B01 and F01 showing measurement discrepancies.

EN 1591, “*Flanges and their joints — Design rules for gasketed flange connections*” consists of the following parts:

- *Part 1: Calculation method*
- *Part 2: Gasket parameters (CEN/TR)*
- *Part 3: Calculation method for metal to metal contact type flanged joint (CEN/TS)*
- *Part 4: Qualification of personnel competency in the assembly of the bolted connections of critical service pressurized systems Pressure Equipment Directive;*
- *Part 5: Calculation method for full face gasketed joints (CEN/TR).*

The data values given in this document were all determined by the test methods given in EN 13555. The data given was obtained during the PERL Project<sup>1)</sup> during which the test methods of EN 13555 were assessed for practicability and repeatability by the test laboratories at MPA and CETIM (see footnotes 2 and 3 of Table A.1). The materials selected for evaluation during that project were those suggested by the organisations taking part in the PERL project. The materials tested in that project, and therefore the data given in this document, are just a selection of the total range of commercial gasket offerings that are available from the various gasket manufacturers and distributors. The data presented in this document is intended to assist engineers using EN 1591-1 during their preliminary calculations. Other public sources of reliable data are given in Annex B. In all cases it is expected that engineers will obtain from the manufacturer of their choice the data for the gasket intended to be used in the application in hand. The website of the European Sealing Association, <http://www.europeansealing.com/>, contains links to their members throughout Europe.

The importance of using the data for the exact style, make and thickness of gasket intended to be used can be seen from the dispersion of the results between gasket makes within a style and thickness in this document.

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<sup>1)</sup> PERL, *Pressure Equipment, Reduction of Leak rate: Gasket parameters measurement, RTD Project in the Framework of the "Competitive & Sustainable Growth" Programme.*

**CEN/TR 1591-2:2020 (E)**

## 1 Scope

This document details generic gasket parameters for use in EN 1591-1 during preliminary calculations during which the type of gasket to be used in an application is to be decided. Once the gasket type has been decided the parameters for gaskets of that type from the different potential commercial suppliers should be used in further calculations as within a gasket type there will be differences depending upon the supplier.

**WARNING** — For the final calculations using the method given in EN 1591-1 the reader is directed to obtain gasket parameters for the selected generic type of gasket from the intended gasket manufacturer. This is because the data for a generic gasket type will vary between manufacturers. This variation can be seen in the tables of data which are embodied 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.

EN 1591-1, *Flanges and their joints - Design rules for gasketed circular flange connections - Part 1: Calculation*

EN 13555, *Flanges and their joints - Gasket parameters and test procedures relevant to the design rules for gasketed circular flange connections*

**koniec náhľadu – text ďalej pokračuje v platenej verzii STN**