## BS EN 12560-2:2013



**BSI Standards Publication** 

# Flanges and their joints — Dimensions of gaskets for Class-designated flanges

Part 2: Spiral wound gaskets for use with steel flanges



...making excellence a habit."

#### National foreword

This British Standard is the UK implementation of EN 12560-2:2013. It supersedes BS EN 12560-2:2001 which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee PSE/15/2, Flanges - Jointing materials and compounds.

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

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

© The British Standards Institution 2013. Published by BSI Standards Limited 2013

ISBN 978 0 580 75632 0

ICS 23.040.01

## Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 September 2013.

#### Amendments issued since publication

Date Text affected

## EUROPEAN STANDARD NORME EUROPÉENNE

## EUROPÄISCHE NORM

September 2013

EN 12560-2

ICS 23.040.01

Supersedes EN 12560-2:2001

**English Version** 

## Flanges and their joints - Dimensions of gaskets for Classdesignated flanges - Part 2: Spiral wound gaskets for use with steel flanges

Brides et leurs assemblages - Dimensions des joints pour brides désignées Class - Partie 2: Joints spiralés pour utilisation avec des brides en acier Flansche und ihre Verbindungen - Dichtungen für Flansche mit Class-Bezeichnung - Teil 2: Spiraldichtungen für Stahlflansche

This European Standard was approved by CEN on 10 August 2013.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

© 2013 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. EN 12560-2:2013: E

## Contents

Forewo	Foreword3	
1	Scope4	
2	Normative references4	
3	Terms and definitions4	
4 4.1	Designations5 Range of Class designations	
4.2 4.3 4.4	Range of gasket sizes	
5 5.1 5.2	Gasket designs and materials6 Gasket designs	
6	Construction	
7	Gasket compression7	
8	Gasket types7	
9	Dimensions7	
10 10.1 10.2	Marking	
Annex	A (informative) Minimum pipe wall thickness 13	
Bibliography15		

## Foreword

This document (EN 12560-2:2013) 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 March 2014, and conflicting national standards shall be withdrawn at the latest by March 2014.

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

This document supersedes EN 12560-2:2001.

The main changes to this standard compared with EN 12560-2:2001 are:

- a) The normative references have been updated.
- b) 5.2 has been revised, and warning clause on asbestos has been deleted.
- c) Gasket requirements in Clause 8 have been revised.
- d) All tables in the standard have been revised.
- e) Informative Annex A with A-deviations for use of asbestos has been deleted.
- f) A Bibliography has been added.

EN 12560, "Flanges and their joints — Gaskets for Class-designated flanges" consists of seven parts:

- Part 1: Non-metallic flat gaskets with or without inserts
- Part 2: Spiral wound gaskets for use with steel flanges (the present document)
- Part 3: Non-metallic PTFE envelope gaskets
- Part 4: Corrugated, flat or grooved metallic and filled metallic gaskets for use with steel flanges
- Part 5: Metallic ring joint gaskets for use with steel flanges
- Part 6: Covered serrated metal gaskets for use with steel flanges
- Part 7: Covered metal jacketed gaskets for use with steel flanges

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### 1 Scope

This European Standard specifies the dimensions, design, types, designation, materials and marking of spiral wound gaskets for use with type A flat face or type B raised face flange facings complying with EN 1759-1 for the following Class designations:

— Class 150, to Class 1 500 for nominal sizes DN 15 to DN 600, and

— Class designation 2 500 up to and including DN 300.

The centering rings for the spiral wound gaskets according to this standard are sized for use with imperial bolting.

The dimensions of spiral wound gaskets for tongue and groove flange facing types and spigot and recess flange facing types to EN 1759-1 are not included in this standard.

Such gaskets may be available, however, for these types of flange and the purchaser is advised to consult the manufacturer as to their availability. Similarly, for slip-on or screwed flange types, the manufacturer should be consulted about availability.

NOTE Dimensions of other types of gasket for use with flanges complying with the requirements of EN 1759-1 are given in EN 12560-1, EN 12560-3, EN 12560-4 and EN 12560-5, EN 12560-6 and EN 12560-7.

### 2 Normative references

Not applicable.

## 3 Terms and definitions

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

### 3.1

#### DN

alphanumeric designation of size for components of a pipework system, which is used for reference purposes, comprised of the letters DN followed by a dimensionless whole number which is indirectly related to the physical size, in millimetres, of the bore or outside diameter of the end connections

Note 1 to entry: The number following the letters DN does not represent a measurable value and should not be used for calculation purposes except where specified in the relevant standard.

[SOURCE: EN ISO 6708:1995, 2.1, definition slightly modified]

### 3.2

NPS

alphanumeric designation of size for components of a pipework system, which is used for reference purposes, comprised of the letters NPS followed by a dimensionless number which is indirectly related to the physical size of the bore or outside diameter of the end connections

Note 1 to entry: The number following the letters NPS does not represent a measurable value and should not be used for calculation purposes except where specified in the relevant standard.

[SOURCE: EN 1759-1:2004, 3.3, definition slightly modified]