# Flanges and their joints - Gaskets for class-designated flanges - Part 6: Covered serrated metal gaskets for uses with steel flanges

Flanges and their joints - Gaskets for classdesignated flanges - Part 6: Covered serrated metal gaskets for uses with steel flanges



# **EESTI STANDARDI EESSÕNA**

# **NATIONAL FOREWORD**

Käesolev Eesti standard EVS-EN 12560-
6:2004 sisaldab rahvusvahelise standardi
ingliskeelset teksti.

Käesolev dokument on jõustatud 27.04.2004 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 12560-6:2004 consists of the English text of the international standard.

This document is endorsed on 27.04.2004 with the notification being published in the official publication of the Estonian national standardisation organisation.

The standard is available from Estonian standardisation organisation.

# Käsitlusala:

This European Standard specifies the construction, dimensions and marking of covered serrated metal gaskets for use with flanges complying with prEN 1759-1 for Class 150, Class 300, Class 600, Class 900, Class 1500 and Class 2500 up to and including NPS 24.

# Scope:

This European Standard specifies the construction, dimensions and marking of covered serrated metal gaskets for use with flanges complying with prEN 1759-1 for Class 150, Class 300, Class 600, Class 900, Class 1500 and Class 2500 up to and including NPS 24.

ICS 23.040.80

**Võtmesõnad:** flanged fittings, flanges, materials, metallic materials, metals, pipe couplings, pipelines, pipes, sealing materials, seals, seals: stoppers, sectional seals, shape, size, steel flanges, tubes

# EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 12560-6

December 2003

ICS 23.040.80

## **English version**

# Flanges and their joints - Gaskets for Class-designated flanges - Part 6: Covered serrated metal gaskets for use with steel flanges

Brides et leurs assemblages - Joints pour les brides désignées Class - Partie 6: Joints métalliques striés revêtus pour utilisation avec des brides en acier Flansche und ihre Verbindungen - Dichtungen für Flansche mit Class-Bezeichnung - Teil 6: Kammprofildichtungen für Stahlflansche

This European Standard was approved by CEN on 3 November 2003.

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 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.



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

Management Centre: rue de Stassart, 36 B-1050 Brussels

# EN 12560-6:2003 (E)

Cont	ents I	page
Forewo	ord	3
1	Scope	4
2	Normative references	4
3	Terms and definitions	4
4 4.1 4.2 4.3 4.4	Designations Range of class designations Range of gasket sizes Gasket types Information to be supplied by the purchaser	5 5 5
5 5.1 5.2	Constructional details	5 5
5.2.1 5.2.2 5.2.3	Core materials  Core welding  Dressing of core welds	5 6
5.2.4 5.3 5.4 5.4.1	Core flatness	6 6
5.4.1 5.4.2 5.5 5.6	Loose ringFacing weight per unit area	6 6
5.6 5.7 5.7.1 5.7.2	Attachment of facing	7 7
5.7.3 5.7.4 5.8	Number of joins  Excessive facing  Integrity of facing attachment	7 7 7
5.9 6	Typical construction details  Dimensions	
7	Marking	
, B	Colour coding	
a a	Packaging	
Annov	A (informative) Information to be supplied by the purchaser	
	B (informative) The use of metric bolting with class designated covered serrated metal gaskets  General	14 14 14
Diblion	mental C	4 5

# **Foreword**

This document (EN 12560-6:2003) 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 June 2004, and conflicting national standards shall be withdrawn at the latest by June 2004.

The annex A is informative and contains "Information to be supplied by the purchaser".

The annex B is informative and contains "The use of metric bolting with class designated covered serrated metal gaskets".

This document includes a Bibliography.

EN 12560 consists of 7 parts:

- Part 1: Non-metallic flat gaskets with or without inserts
- Part 2: Spiral wound gaskets for use with steel flanges
- 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 organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and the United Kingdom.

# 1 Scope

This European Standard specifies the construction, dimensions and marking of covered serrated metal gaskets for use with flanges complying with prEN 1759-1 for Class 150, Class 300, Class 600, Class 900, Class 1500 and Class 2500 up to and including NPS 24.

This document does not extend to serrated covered metal based heat exchanger gaskets with pass bars or large vessel gaskets but, in the lack of a dedicated document for such gaskets, the principles set down can be applied to them.

NOTE 1 Dimensions of other types of gaskets for use with flanges to prEN 1759-1, EN 1759-3 and EN 1759-4 are given in EN 12560-1, EN 12560-2, EN 12560-3, EN 12560-4, EN 12560-5 and prEN 12560-7.

NOTE 2 Annex A lists information that should be supplied by the purchaser when ordering gaskets in circumstances where the choice of the gasket materials appropriate to the service is left to the supplier.

### 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text, and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

prEN 1759-1, Flanges and their joints - Circular flanges for pipes, valves, fittings and accessories, Class-designated - Part 1: Steel flanges, NPS 1/2 to 24.

EN 1759-3:2003, Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, Class designated — Part 3: Copper alloy flanges.

EN ISO 6708:1995, Pipework components — Definition and selection of DN (nominal size) (ISO 6708:1995).

#### 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 1759-3:2003, EN ISO 6708:1995 and the following apply.

#### 3.1

# covered serrated metal gasket

consists of a sealing element with or without a location ring which may or may not be rigidly fixed to the sealing element. The sealing element consists of a metal core with serrated top and lower surfaces and a conformable sealing material adhered to each serrated surface. The serrations into metal core have the function of creating regions of high surface pressure on the conformable sealing material to ensure the required level of tightness in service. The density of the sealing material in the serrations during service should also be high enough to ensure that secondary sealing is provided by the impermeable nature of the material between the tips of the serrations. In service the thickness of the sealing material over the serrations is minimal, often about 0,1 mm. The widths of the tips of the serrations should also be of the order of 0,1 mm

**3.2 DN** see EN ISO 6708

**3.3 NPS** see EN 1759-3

**3.4 class** see EN 1759-3