



# SLOVENSKI STANDARD

## SIST EN 558:2008

01-julij-2008

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Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems - PN and Class designated valves

Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems - PN and Class designated valves

Industriearmaturen - Baulängen von Armaturen aus Metall zum Einbau in Rohrleitungen mit Flanschen - Nach PN und Class bezeichnete Armaturen

Robinetterie industrielle - Dimensions face-a-face et face-a-axe de la robinetterie métallique utilisée dans les systèmes de canalisations à brides - Appareils de robinetterie désignés PN et Class

**Ta slovenski standard je istoveten z: EN 558:2008**

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**ICS:**

23.060.01      Ventili na splošno      Valves in general

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English Version

Industrial valves - Face-to-face and centre-to-face dimensions of  
metal valves for use in flanged pipe systems - PN and Class  
designated valves

Robinetterie industrielle - Dimensions face-à-face et face-à-  
axe de la robinetterie métallique utilisée dans les systèmes  
de canalisations à brides - Appareils de robinetterie  
désignés PN et Class

Industriearmaturen - Baulängen von Armaturen aus Metall  
zum Einbau in Rohrleitungen mit Flanschen - Nach PN und  
Class bezeichnete Armaturen

This European Standard was approved by CEN on 14 December 2007.

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 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 Management Centre has the same status as the official versions.

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EUROPEAN COMMITTEE FOR STANDARDIZATION  
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## Foreword

This document (EN 558:2008) has been prepared by Technical Committee CEN/TC 69 “Industrial valves”, the secretariat of which is held by AFNOR.

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 July 2008, and conflicting national standards shall be withdrawn at the latest by July 2008.

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.

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

This document supersedes EN 558-1:1995 and EN 558-2:1995.

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## Introduction

The basic series given in this document are taken from the original series shown in Annex A (informative). Changes made to the original series will not be automatically incorporated into this document.

The numbers of the existing ISO basic series are maintained as in ISO 5752:1982.

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## 1 Scope

This European Standard specifies the face-to-face (FTF) and centre-to-face (CTF) dimensions for PN and Class designated metal valves used in flanged pipe systems.

This standard covers valves with the following PN, Class and DN values:

- PN 2,5; PN 6; PN 10; PN 16; PN 25; PN 40; PN 63; PN 100; PN 160; PN 250; PN 320; PN 400; PN 500
- Class 125; Class 150; Class 250; Class 300; Class 600; Class 900; Class 1 500; Class 2 500.
- DN 10; DN 15; DN 20; DN 25; DN 32; DN 40; DN 50; DN 65; DN 80; DN 100; DN 125; DN 150; DN 200; DN 250; DN 300; DN 350; DN 400; DN 450; DN 500; DN 600; DN 700; DN 750; DN 800; DN 900; DN 1 000; DN 1 200; DN 1 400; DN 1 600; DN 1 800; DN 2 000.

The face-to-face dimensions of flanged automatic steam traps are specified in EN 26554.

For valves in other shell materials than metal the same FTF and CTF dimensions may be used.

## 2 Normative references

The following referenced documents are indispensable for the application 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 736-1:1995, *Valves - Terminology - Part 1: Definition of types of valves*

ISO 5752:1982, *Metal valves for use in flanged pipe systems — Face-to-face and centre-to-face dimensions*

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## 3 Terms and definitions

For the purposes of this European Standard, the terms and definitions of EN 736-1:1995, and the following apply.

### 3.1

#### **face-to-face dimensions (FTF)**

(straight pattern valves)

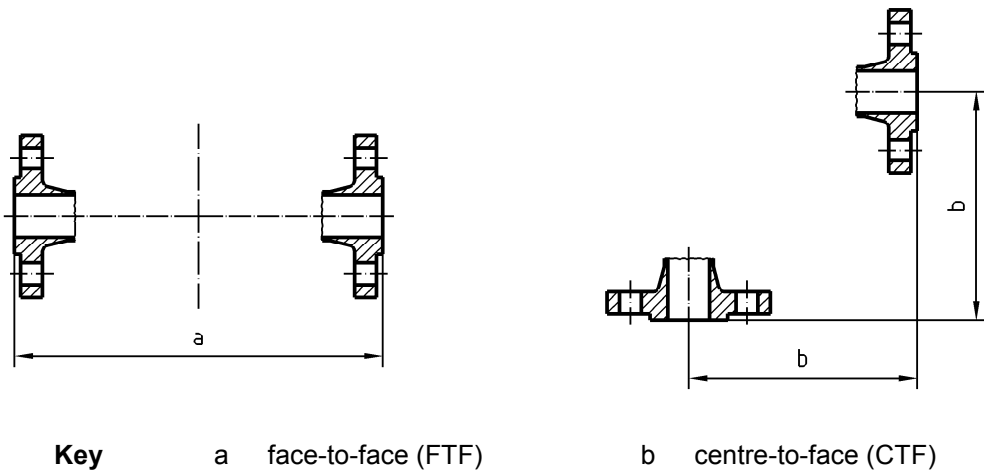
distance, in millimetres, between the two planes perpendicular to the valve axis located at the extremities of the body end ports or as specified in the relevant valve product standard (see Figures 1 to 3)

### 3.2

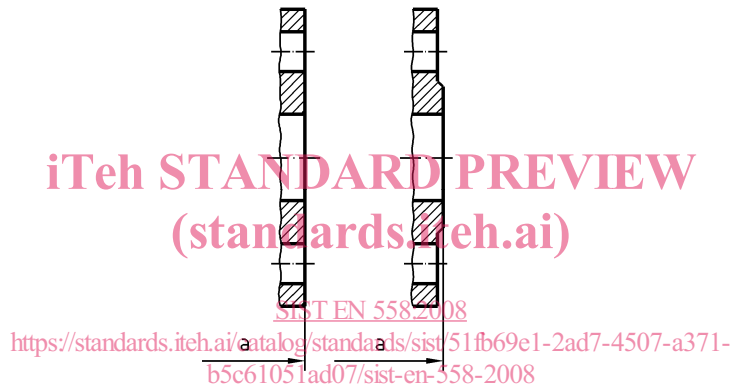
#### **centre-to-face dimensions (CTF)**

(angle pattern valves)

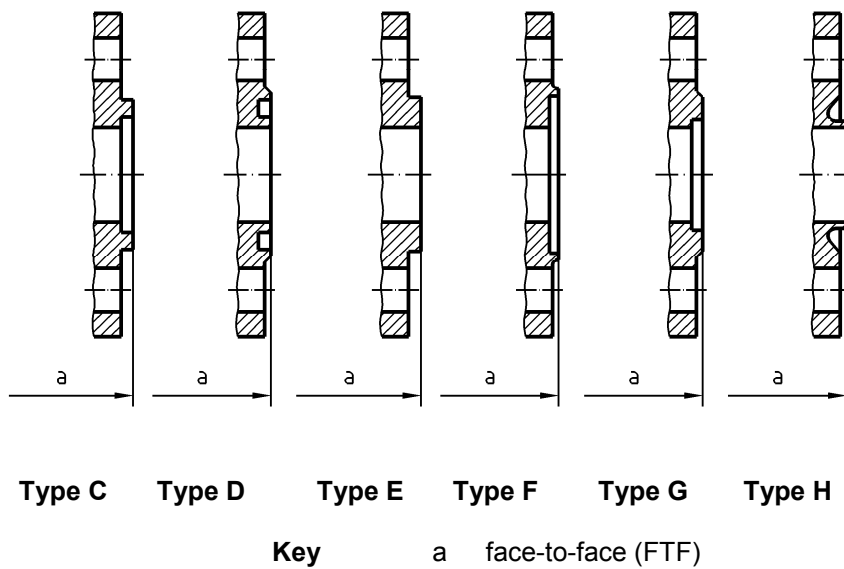
distance, in millimetres, between the plane located at the extremity of either body end port and perpendicular to its axis and the axis of the other body end port (Figures 1 to 3)



**Figure 1 — Face to face and centre to face dimensions**



**Figure 2 — Flanged valves PN and Class designated (flat and raised faces)**



**Figure 3 - Flanged valves PN designated (spigot and recess)**



Dimensions in millimetres

	Class 150 and Class 300	Class 600
Large or small male face	<p><math>b = a + 12,7</math>  <math>c = a + 6,4</math>          6,4      a</p>	<p><math>b = a</math>  <math>c = a</math>          6,4</p>
Large or small female face	<p><math>b = a + 9,6</math>  <math>c = a + 4,8</math>          4,8      a</p>	<p>a  <math>b = a - 3,2</math>  <math>c = a - 1,6</math>          1,6</p>
Large or small tongue	<p>SIST EN 558:2008  <a href="https://standards.iteh.ai/catalog/standards/sist-en-558-2008-b69e1-2ad7-4507-a371-b5c61051ad07/sist-en-558-2008">https://standards.iteh.ai/catalog/standards/sist-en-558-2008-b69e1-2ad7-4507-a371-b5c61051ad07/sist-en-558-2008</a></p> <p><math>b = a + 12,7</math>  <math>c = a + 6,4</math>          6,4      a</p>	<p><math>b = a</math>  <math>c = a</math>          6,4</p>
Large or small groove	<p><math>b = a + 9,6</math>  <math>c = a + 4,8</math>          4,8      a</p>	<p>a  <math>b = a - 3,2</math>  <math>c = a - 1,6</math>          1,6</p>

**Key**

a For dimensions see Table 2

b face-to-face (FTF)

c centre-to-face (CTF)

**Figure 4 - Flanged valves Class designated**

**4 Dimensions and tolerances**

**4.1 Basic series**

The basic series of FTF and CTF dimensions shall be as given in Table 2.

**4.2 Face-to-face and centre-to-face dimensions**

**4.2.1 General**

The FTF and CTF dimensions shall be in accordance with Figures 1 to 4.

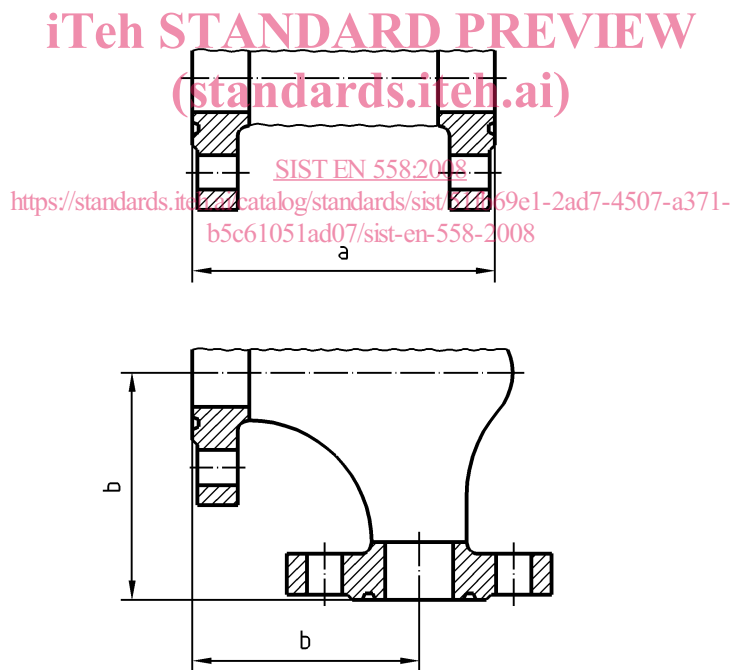
For each type of valve, the basic series to be taken into consideration are given in Table 4 to Table 14.

NOTE 1 Table 2 gives complete series. In Table 4 to Table 14 the columns of series may be incomplete.

NOTE 2 For certain sizes/types of valves, alternative dimensions are permitted and these are specified in Table 4 to Table 14 as appropriate.

NOTE 3 The origin of the basic series is shown in Annex A (informative).

For Class designated valves with ring joint flanges, the FTF or CTF dimensions given in Table 2 shall be increased by *x* as defined in the Table 1.



**Key**

- 1 FTF = Dimension of Table 2 + *x*                      a face-to-face (FTF)
- 2 CTF = Dimension of Table 2 + 0,5 *x*                b centre-to-face (CTF)

**Figure 5 - FTF and CTF dimensions for Class designated valves with ring joint flanges**

Table 1 — Additional length  $x$  for ring joint flanges

Dimensions in millimetres

Nominal size	Additional length $x$ for ring joint flanges		
	Class 150	Class 300	Class 600
15	11,1	11,1	- 1,6
20	12,7	12,7	0
25			
32			
40			
50		15,9	3,2
65			
80			
100			
125			
150			
200	19,1	6,4	
250			
300	22,2	9,5	
350			
400	25,4	12,7	
450			
500	—	28,6	15,9
600			
700			
750			
800	—	28,6	15,9
900			
1 000			

**4.2.2** For valves having a resilient lining which forms the gasket joint with the mating flanges, the FTF and CTF dimensions shall be the distance between the extremities of the valve in the installed condition.

If the dimensions for CTF and FTF differ from the standard dimensions, they shall be given by the manufacturer.

**4.2.3** For valves having a resilient or hard lining, the thickness of the lining on the mating surface shall be included in the FTF and CTF dimensions given in Table 2, unless the design of the valve precludes such an inclusion.

If this is the case, the manufacturer shall indicate the deviation from the standardised FTF or CTF dimensions in his documentation.

4.2.4 Raised face flanges

For valves:

- having flanges with 1,6 mm raised flange:
- in grey cast iron, Class 250;
- ductile cast iron, Class 150 and 300;
- having flanges with 6,4 mm raised flange:
- in steel, Class 600.

The FTF and CTF dimensions shall be in accordance with Figure 1 and Figure 6.

Dimensions in millimetres



Key

- a face-to-face (FTF) or centre-to-face (CTF), for dimensions see Table 2

Figure 6 - FTF and CTF dimensions for Class designated valves with raised face flanges