

SLOVENSKI STANDARD

SIST EN 558:2017

01-maj-2017

Nadomešča:

SIST EN 26554:2000

SIST EN 558:2008+A1:2012

Industrijski ventili - Vgradne dolžine kovinskih ventilov za cevovode s prirobnicami - Ventili, označeni po PN in Class

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

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

[SIST EN 558:2017](https://standards.itel.si/catalog/standards/sist/41d56e83-cf17-4491-931d-3f1bd6441d0/sist-en-558-2017)

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

Ta slovenski standard je istoveten z: EN 558:2017

ICS:

23.060.01 Ventili na splošno Valves in general

SIST EN 558:2017 en,fr,de

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EUROPEAN STANDARD

EN 558

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2017

ICS 23.040.99; 23.060.10

Supersedes EN 26554:1991, EN 558:2008+A1:2011

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

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This European Standard was approved by CEN on 25 December 2016.

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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

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European foreword

This document (EN 558:2017) 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 August 2017, and conflicting national standards shall be withdrawn at the latest by August 2017.

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 558:2008+A1:2011 and EN 26554:1991.

The main changes to the previous edition are the following:

- PN 500 has been deleted from the scope;
- Figure 4 has been updated;
- 4.2.4 for raised face flanges has been simplified and Figure 6 has been deleted;
- DN 1050 has been added in the scope, Table 2 and Table B.1;
- Basic series 111 to 124 have been added in Table 2 and in Table A.1;
- FTF series 117 to 121, Class 250 and Class 600 have been added in Table 12;
- FTF series 111 and 112 have been added in Table 13;
- A new Table 16 was added for steam traps.

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, 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, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 558:2017 (E)

Introduction

The basic series given in this document are taken from the original series shown in Annex A. 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 European 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;
- 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 1 050; DN 1 200; DN 1 400; DN 1 600; DN 1 800; DN 2 000.

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

For relationship between DN and NPS see Annex B.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. 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, *Valves - Terminology - Part 1: Definition of types of valves*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 736-1 and the following apply.

3.1

face-to-face dimensions

(FTF)

[straight pattern valves]

distance 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

Note 1 to entry: See Figures 1 to 4.

Note 2 to entry: In millimetres.

3.2

centre-to-face dimensions

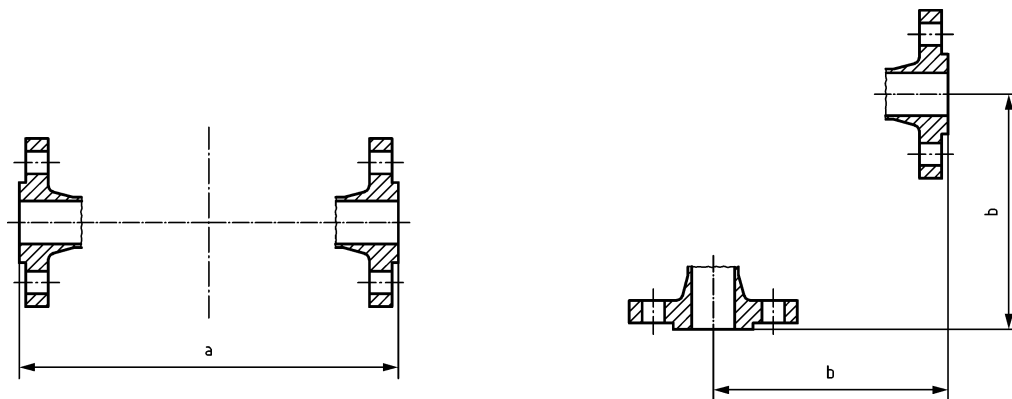
(CTF)

[angle pattern valves]

distance, 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

Note 1 to entry: See Figures 1 to 4.

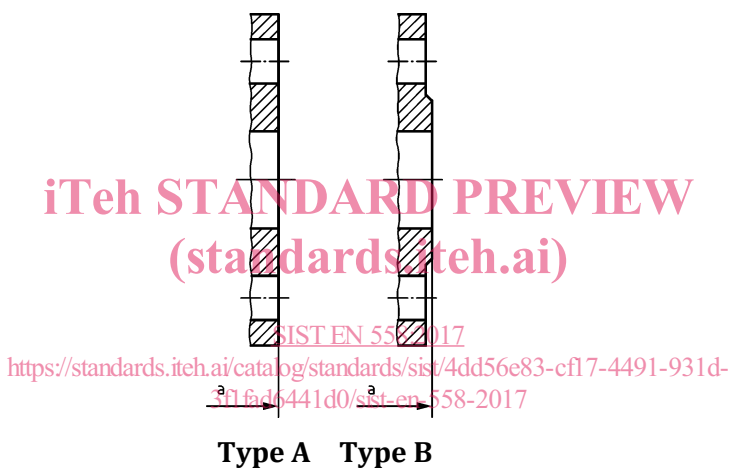
Note 2 to entry: In millimetres.



Key

- a face-to-face (FTF)
- b centre-to-face (CTF)

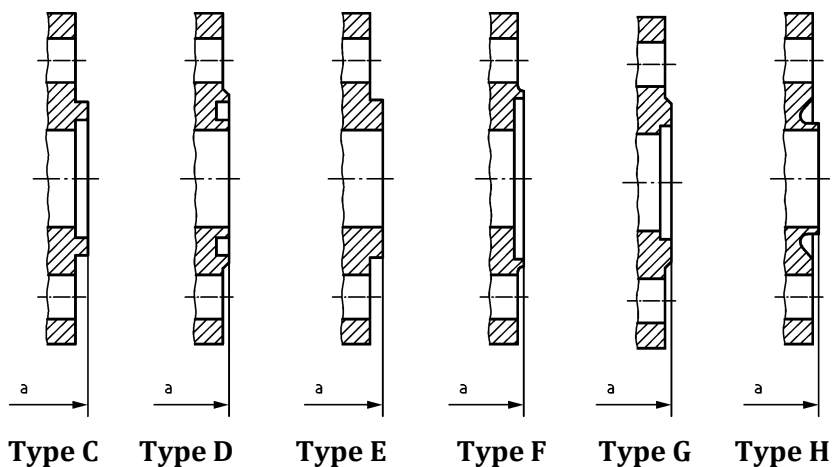
Figure 1 — Face to face and centre to face dimensions



Key

- a face-to-face (FTF)

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



Key

- a face-to-face (FTF)

Figure 3 — Flanged valves PN designated (spigot and recess)

	Class 150 and Class 300	Class 600 and above
Large or small male face	<p>$b = a + 2e$ $c = a + e$ e a</p>	<p>$b = a$ $c = a$ e</p>
Large or small female face	<p>$b = a + 2e$ $c = a + e$ e a</p>	<p>$b = a - 2e$ $c = a - e$ e a</p>
Large or small tongue	<p>$b = a + 2e$ $c = a + e$ e a</p>	<p>$b = a$ $c = a$ e</p>
Large or small groove	<p>$b = a + 2e$ $c = a + e$ e a</p>	<p>$b = a - 2e$ $c = a - e$ e a</p>

NOTE For elevation e , see appropriate flange standard.

Key

- a for dimensions see Table 2
- b face-to-face (FTF)
- c centre-to-face (CTF)
- e elevation

Figure 4 — Flanged valves Class designated

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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 and Table 2.

For each type of valve, the basic series to be taken into consideration are given in Table 5 to Table 16.

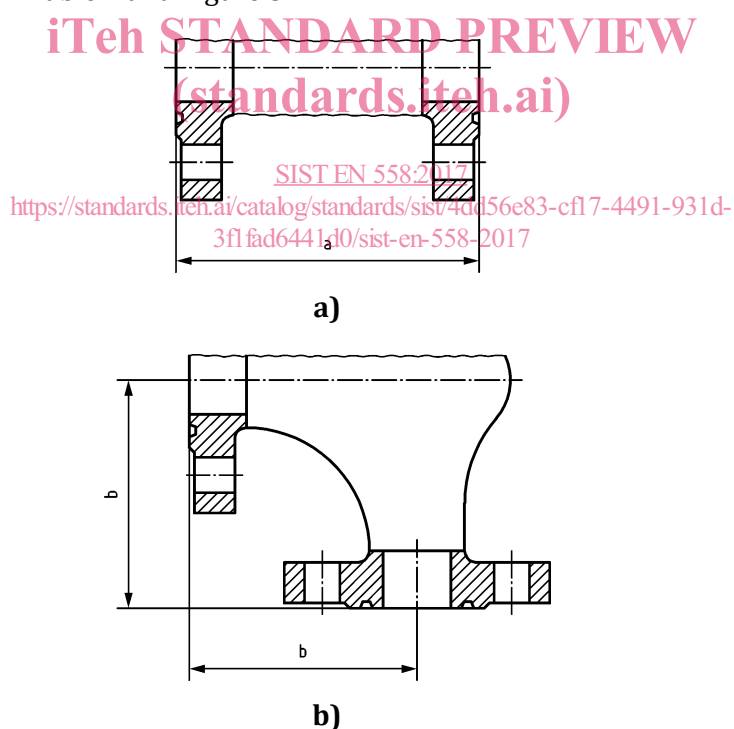
NOTE 1 Table 2 gives complete series. In Table 5 to Table 16, the columns of series may be incomplete.

NOTE 2 For certain sizes/types of valves, alternative dimensions are permitted and these are specified in Table 5 to Table 16 as appropriate.

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

4.2.2 Class designated valves with ring joint flanges

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 Table 1 and Figure 5.



Key

- a FTF = Dimension of Table 2 + x
- b CTF = Dimension of Table 2 + $0,5 x$

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	Class 900	Class 1 500	Class 2 500	
DN	Class 150	Class 300	Class 600	Class 900	Class 1 500	Class 2 500	
15	11,1	11,1	- 1,6				
20	12,7	12,7	0	0	0	0	
25						3,2	
32							
40							
50		3,2	3,2	3,2	3,2	3,2	6,4
65							
80							
100							
125							
150							
200		15,9	3,2	3,2	3,2	3,2	9,5
250							
300							
350							
400							
450							
500	19,1	6,4	12,7	12,7	12,7	22,2	
600							
700							
750							
800	-	28,6	15,9	-	-	-	
900							
1 000							

4.2.3 Valves with lining

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.

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.

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

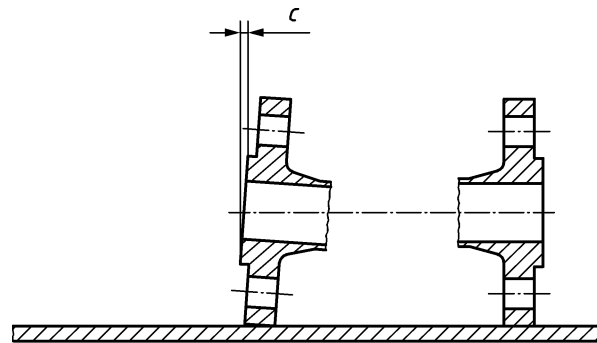
4.2.4 Raised face flanges

The raised face dimensions shall be in accordance with the applicable flange standard.

4.3 Tolerances

Tolerances on FTF and CTF dimensions are given in Table 3. Both tolerances shall be fulfilled.

End flange seating surfaces shall be parallel or perpendicular. Tolerances “*c*” on the parallelism or perpendicularity as shown in Figure 6 are given in Table 4.



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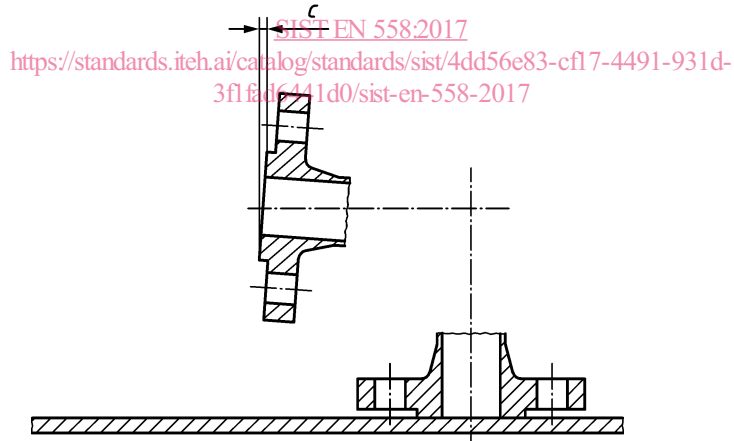


Figure 6 — Tolerances on parallelism and perpendicularity