



**SLOVENSKI STANDARD**  
**SIST EN 558-1:2000**  
**01-september-2000**

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Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanges pipe systems - Part 1: PN-designated valves

Industrial valves - Face-to-face and centre-to-face dimensions of metal valves for use in flanges pipe systems - Part 1: PN-designated valves

Industriearmaturen - Baulängen von Armaturen aus Metall zum Einbau in Rohrleitungen mit Flanschen - Teil 1: Nach PN bezeichnete Armaturen

Robinetterie industrielle - Dimensions face-a-face et face-a-axe de la robinetterie métallique utilisée dans les systèmes de canalisations à brides - Partie 1: Appareils de robinetterie désignés PN

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**Ta slovenski standard je istoveten z: EN 558-1:1995**

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**ICS:**

23.060.01      Ventili na splošno      Valves in general

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EUROPEAN STANDARD

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EUROPÄISCHE NORM

October 1995

ICS 23.060.00

Descriptors: industrial valves, valves-and fittings, cocks, flanged valves, metallurgical products, dimensions, generalities

English version

**Industrial valves - Face-to-face and centre-to-face  
dimensions of metal valves for use in flanged pipe  
systems - Part 1: PN-designated valves**

Robinetterie industrielle - Dimensions  
face-à-face et face-à-axe de la robinetterie  
métallique utilisée dans les systèmes de  
canalisations à brides - Partie 1: Appareils de  
robinetterie désignés PN

Industriearmaturen - Baulängen von Armaturen  
aus Metall zum Einbau in Rohrleitungen mit  
Flanschen - Teil 1: Nach PN bezeichnete  
Armaturen

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# CEN

European Committee for Standardization  
Comité Européen de Normalisation  
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## Foreword

This European Standard has been prepared by the Technical Committee CEN/TC 69 "Industrial valves" of which the secretariat 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of an identical text or by endorsement, at the latest by April 1996, and conflicting national standards shall be withdrawn at the latest by April 1996.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EC Directive(s).

This standard was drawn up on the basis of the international draft standard ISO/DIS 5752 and contains two Parts which can be used separately:

EN 558-1 *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — Part 1: PN-designated valves*

EN 558-2 *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — Part 2: Class-designated valves*

The progress in work in the standardization of the different products can require a revision of the standard by adding or subtracting some basic series.

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## 0 Introduction

All tables of face-to-face and centre-to-face dimensions are drafted separately for PN designated valves in EN 558-1 and for Class designated valves in EN 558-2.

The basic series in this standard are taken from the origin series shown in annex A (informative). Changes made to the origin series will not be automatically incorporated into this standard.

The numbers of the basic series are maintained as in ISO/DIS 5752: 1993.

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## 1 Scope

This part of this standard specifies face-to-face (FTF) and centre-to-face (CTF) dimensions for PN designated metal valves used in flanged pipe systems.

This part of this standard covers valves having the following PN and DN values:

- PN 2,5; PN 6; PN 10; PN 16; PN 25; PN 40; PN 63; PN 100.

- 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 800; DN 900; DN 1 000; DN 1 200; DN 1 400; DN 1 600; DN 1 800; DN 2 000.

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

## 2 Normative references

This 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 the cited publication 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.

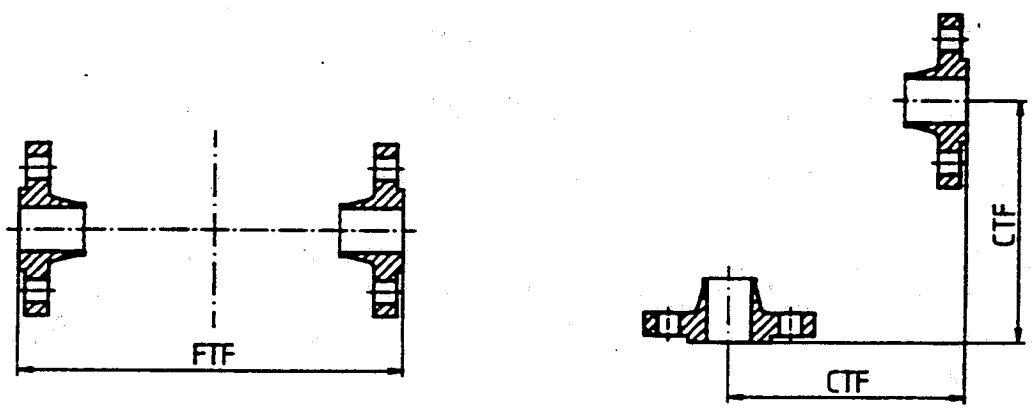
EN 736-1	Valves - Terminology Part 1: Definitions of types of valves
EN 26554	Flanged automatic steam traps - Face-to-face dimensions

## 3 Definitions

For the purposes of this standard, prEN 736-1 and the following definitions apply:

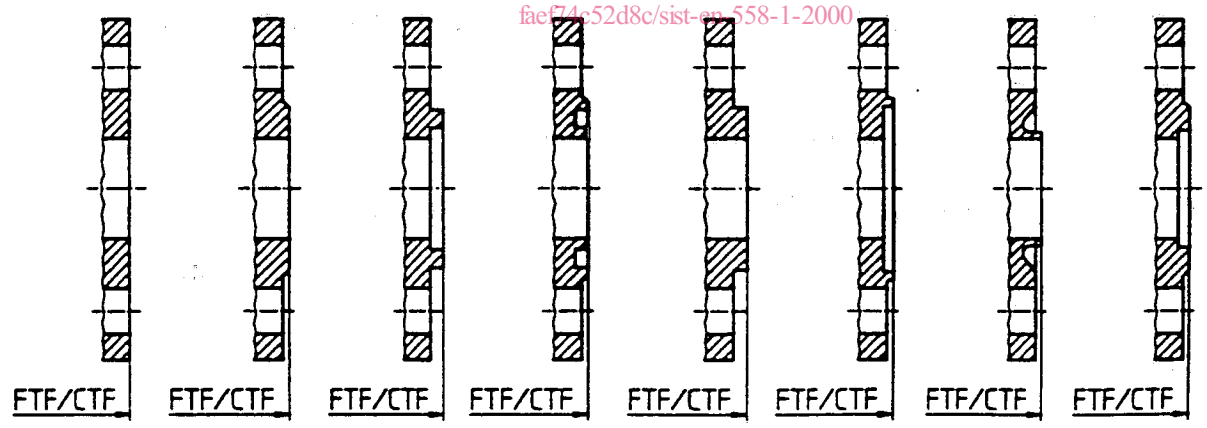
**3.1 face-to-face dimension (FTF) (for straight pattern valves):** The distance, expressed in millimetres, between the two planes perpendicular to the valve axis located at the extremities of the body end ports or as may be specified in the relevant valve product standard (see figures 1 and 2).

**3.2 centre-to-face dimension (CTF) (for angle pattern valves):** The distance, expressed 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 (see figures 1 and 2).



**Figure 1**  
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**Figure 2**



## 4 Dimensions and tolerances

### 4.1 Basic series

The basic series of FTF and CTF dimensions shall be as given in table 1.

For each type of valve, the basic series to be taken into consideration are given in tables 3 to 17.

### 4.2 Dimensions for unlined valves

For unlined valves the FTF and CTF dimensions shall be in accordance with figures 1 and 2.

### 4.3 Dimensions for lined valves

4.3.1 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.

The overall valve dimensions before assembly shall be provided by the manufacturer.

4.3.2 For valves having resilient or hard linings as a regular production feature the thickness of the lining on the mating surface shall be included in the FTF and CTF dimensions given in table 1, unless the design of the valve precludes such an inclusion.

Where the design does not permit the lining to be included in the FTF and CTF dimensions given in table 1, then the thickness of the lining may be added to the basic dimension.

4.3.3 For valves having resilient or hard linings which are not normally a regular production feature, the thickness of the lining on the flange faces may be added to the FTF and CTF dimensions given in table 1.

### 4.4 Tolerances

Tolerances on FTF and CTF dimensions are given in table 2.

Table 1: Dimensions of basic series

DN	Basic series																			Dimensions in millimetres				
	1	2	3	4	5	7	8 <sup>1)</sup>	9 <sup>1)</sup>	10	11 <sup>1)</sup>	12	13	14	15	16	18	19	20	21	22 <sup>1)</sup>	23 <sup>1)</sup>	25		
10	130	210	102	-	-	108	90	105	-	-	130	-	115	-	-	80	-	-	-	65	70	-		
15	130	210	108	140	165	108	90	105	108	57	130	-	115	-	-	80	140	-	152	65	70	-		
20	150	230	117	152	190	117	95	115	117	64	130	-	120	-	-	90	152	-	178	70	75	-		
25	160	230	127	165	216	127	100	115	127	70	140	-	125	120	-	100	165	-	216	80	85	-		
32	180	260	140	178	229	146	105	130	140	76	165	-	130	140	-	110	178	-	229	90	95	-		
40	200	260	165	190	241	159	115	130	165	83	165	106	140	240	33	120	190	33	241	95	100	-		
50	230	300	178	216	292	190	125	150	203	102	203	108	150	250	43	135	216	43	267	105	115	-		
65	290	340	190	241	330	216	145	170	216	108	222	112	170	270	46	165	241	46	292	115	125	-		
80	310	380	203	283	356	254	155	190	241	121	241	114	180	280	64	185	283	46	318	125	135	49		
100	350	430	229	305	432	305	175	215	292	146	305	127	190	300	64	229	305	52	356	135	146	56		
125	400	500	254	381	508	356	200	250	330	178	356	140	200	325	70	-	381	56	400	-	64	64		
150	480	550	267	403	559	406	225	275	356	203	394	140	210	350	76	-	403	56	444	-	70	70		
200	600	650	292	419	660	521	275	325	495	248	457	152	230	400	89	-	419	60	533	-	71	71		
250	700	775	330	457	787	635	325	-	622	311	538	165	250	450	114	-	457	68	622	-	76	76		
300	850	900	356	502	838	749	375	-	698	349	610	178	270	500	114	-	502	78	711	-	83	83		
350	980	1 025	381	562	889	-	425	-	787	394	686	190	290	550	127	-	572	78	838	-	92	92		
400	1 100	1 150	406	638	991	-	475	-	914	457	762	216	310	600	140	-	610	102	864	-	102	102		
450	1 200	1 275	432	691	1 092	-	500	-	978	483	864	222	330	650	152	-	660	114	978	-	114	114		
500	1 250	1 400	457	749	1 194	-	-	-	978	-	914	229	350	700	152	-	711	127	1 016	-	127	127		
600	1 450	1 600	508	838	1 397	-	-	-	1 295	-	1 067	267	390	800	178	-	787	154	1 346	-	154	154		
700	1 650	-	610	-	-	-	-	-	1 448	-	292	410	550	900	229	-	-	165	1 499	-	-	-		
800	1 850	-	660	-	-	-	-	-	1 676	-	318	470	630	1 000	241	-	-	190	1 778	-	-	-		
900	2 050	-	711	-	-	-	-	-	1 956	-	330	510	710	1 100	241	-	-	203	2 083	-	-	-		
1 000	2 250	-	813	-	-	-	-	-	-	-	410	550	790	1 200	300	-	-	216	-	-	-	-		
1 200	-	-	-	-	-	-	-	-	-	-	470	630	930	-	350	-	-	254	-	-	-	-		
1 400	-	-	-	-	-	-	-	-	-	-	530	710	1 000	-	390	-	-	279	-	-	-	-		
1 600	-	-	-	-	-	-	-	-	-	-	600	790	1 100	-	440	-	-	318	-	-	-	-		
1 800	-	-	-	-	-	-	-	-	-	-	670	870	1 200	-	490	-	-	356	-	-	-	-		
2 000	-	-	-	-	-	-	-	-	-	-	760	950	-	-	540	-	-	406	-	-	-	-		

Table 1: Dimensions of basic series (continued)

Dimensions in millimetres

DN	Basic series																					
	26	27	28	29	30	36	37	38	39	40 <sup>1)</sup>	41 <sup>1)</sup>	42 <sup>1)</sup>	43	44	45	46	47	48	49	50	51	53
10	-	115	130	108	-	-	-	-	-	-	-	-	90	-	-	165	-	-	-	-	-	-
15	-	115	130	108	150	-	-	-	-	-	-	-	100	-	152	250	75	-	16	-	-	-
20	-	120	150	117,5	160	76	-	-	-	-	-	-	105	-	210	255	80	-	19	-	-	-
25	-	125	160	127	160	102	184	197	210	92	98	105	115	-	210	255	80	22	-	-	-	-
32	-	130	180	127	180	-	-	-	-	-	-	-	130	36	230	265	90	-	28	-	-	-
40	240	140	200	136	190	114	222	235	251	111	117	125	150	38	240	280	100	31,5	-	-	-	38
50	250	150	230	142	200	124	254	267	286	127	133	143	170	40	250	300	110	200	40	54	54	40
65	290	170	290	154	215	-	-	-	-	-	-	-	-	42	270	340	130	240	46	54	60	42
80	310	180	310	160	230	165	298	317	337	149	159	168	-	44	280	360	150	260	50	57	67	44
100	350	190	350	172	250	194	352	368	394	176	184	197	-	46	300	400	160	300	60	64	67	46
125	400	325	400	186	275	-	-	-	-	-	-	-	-	48	350	450	200	350	90	70	83	48
150	450	350	450	200	300	279	451	473	508	225	236	254	-	50	375	500	210	400	106	76	95	50
200	550	400	550	228	350	243	543	568	610	272	284	305	-	60	425	600	-	500	140	95	127	60
250	650	450	650	255	400	297	673	708	752	337	356	376	-	65	450	700	-	600	-	108	140	65
300	750	500	750	285	425	338	737	775	819	368	387	410	-	75	500	800	-	700	-	143	181	75
350	850	550	850	315	475	-	889	927	972	445	464	486	-	80	550	-	-	800	-	184	222	80
400	950	762	950	340	525	400	1 016	1 057	1 108	508	529	554	-	95	600	-	-	900	-	191	232	95
450	1 050	-	-	360	575	-	-	-	-	-	-	-	-	107	-	-	-	1 000	-	203	264	107
500	1 150	914	1 150	380	625	-	-	-	-	-	-	-	-	120	-	-	-	1 100	-	213	292	120
600	1 350	-	-	425	725	-	-	-	-	-	-	-	-	144	-	-	-	1 300	-	222	318	144
700	1 550	-	-	470	825	-	-	-	-	-	-	-	-	160	-	-	-	1 500	-	321	381	160
800	1 750	-	-	510	925	-	-	-	-	-	-	-	-	180	-	-	-	1 700	-	356	-	180
900	1 950	-	-	555	1 025	-	-	-	-	-	-	-	-	195	-	-	-	1 900	-	368	489	195
1 000	2 150	-	-	600	1 125	-	-	-	-	-	-	-	-	210	-	-	-	2 100	-	419	-	210
1 200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2 000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1) CTF dimensions for angle pattern valves.

NOTE 1: Table 1 gives complete series. In table 3 to 17 the columns of series may be incomplete.

NOTE 2: For certain sizes/types of valves alternative dimensions are permitted and these are specified in tables 3 to 17 as appropriate.

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