



SLOVENSKI STANDARD

SIST EN 12982:2001

01-december-2001

Industrijski ventili - Vgradne dolžine za ventile z zunanjim varilnim nastavkom

Industrial valves - End-to-end and centre-to-end dimensions for butt welding end valves

Industriearmaturen - Baulängen für Armaturen mit Anschweißenden

Robinetterie industrielle - Dimensions entre extrémités et d'extrémité à axe des appareils de robinetterie à souder en bout

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Ta slovenski standard je istoveten z: **EN 12982:2000**

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ICS:

23.060.01 Ventili na splošno Valves in general

SIST EN 12982:2001

en

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SIST EN 12982:2001

<https://standards.iteh.ai/catalog/standards/sist/50625cb9-f7fe-4fb7-abe8-8014e2f6aac2/sist-en-12982-2001>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 12982

January 2000

ICS 23.060.01

English version

Industrial valves - End-to-end and centre-to-end dimensions for butt welding end valves

Robinetterie industrielle - Dimensions entre extrémités et
d'extrémité à axe des appareils de robinetterie à souder en
bout

Industriearmaturen - Baulängen für Armaturen mit
Anschweißenden

This European Standard was approved by CEN on 6 November 1999.

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 Central Secretariat 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 Central Secretariat 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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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

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Foreword

This European Standard 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 2000, and conflicting national standards shall be withdrawn at the latest by July 2000.

SIST EN 12982:2001

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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

The progress of work of the various product standards may request a revision of this standard by adding or deleting of basic series.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association. This European Standard is considered to be a supporting standard to those application and product standards which in themselves support an essential safety requirement of a New Approach Directive and which make reference to this European Standard.

The annexes A and B of this European standard are informative.

Introduction

The basic series in this European Standard are taken from the original series shown in Annex A (informative).

It should not be assumed that changes made to the original series will be incorporated into this Standard since any proposals will be subject to normal CEN procedures.

1 Scope

This standard specifies end-to-end and centre-to-end dimensions for steel butt-weld end valves having connecting dimensions of weld ends in compliance with EN 12627, used in PN and Class designated piping systems.

The range of PN is:

PN 10; PN 16; PN 25; PN 40; PN 63; PN 100.

The range of Class is:

Class 150, Class 300, Class 600, Class 900, Class 1 500, Class 2 500.

The range of nominal size is:

DN 8; 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.

NOTE 1: DN 750 is not applicable to PN designated valves.

NOTE 2: See Annex B (informative) for the relationship between nominal size (DN) and nominal pipe size (NPS).

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.

[SIST EN 12982:2001](https://standards.iteh.ai/catalog/standards/sist/50625cb9-f7fe-4fb7-abe8-8014e2f6aae2/sist-en-12982-2001)

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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

EN 736-1

Valves – Terminology – Definition of types of valves

EN 736-2

Valves – Terminology – Definition of components of valves

EN 736-3

Valves – Terminology – Part 3: Definition of terms

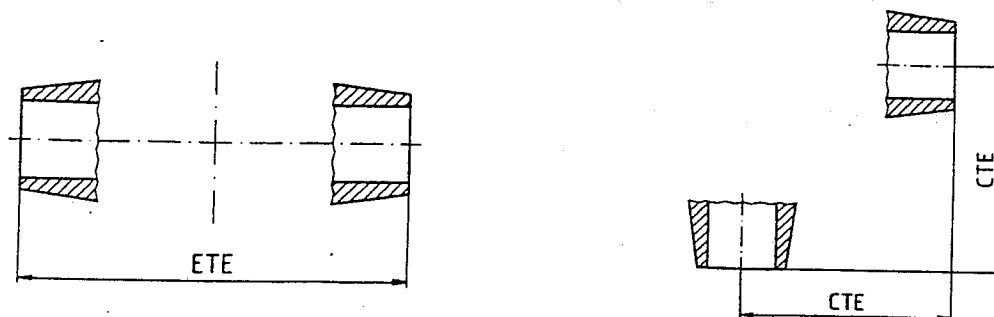
EN 12627

Industrial valves – Butt welding ends for steel valves

3 Definitions

For the purposes of this standard, the definitions given in EN 736-1, EN 736-2, EN 736-3 shall apply.

End to end dimensions ETE and centre-to-end dimensions CTE are defined in EN 736-3 and shown diagrammatically in Figure 1.



Straight and oblique pattern valve

Angle pattern valve

Figure 1

4 Dimensions and tolerances

4.1 Basic Series

The basic series of ETE and CTE dimensions are given in table 1.

For each type of valve, the basic series to be taken into consideration shall be as given in tables 3 to 11.

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4.2 Tolerances

<https://standards.iteh.ai/catalog/standards/sist/50625cb9-f7fe-4fb7-abe8-8014e2f6aae2/sist-en-12982-2001>

Tolerances on ETE and CTE dimensions shall be as given in table 2.

Table 1 - Dimensions of basic series

All dimensions in millimetres

DN	Basic series																						
	1	4	5	7	10	11*	14	15	21	24*	26	32*	33	54	55	56	57*	58*	59*	60	61	62	
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	130	140	165	-	108	57	-	-	152	83	-	76	-	-	216	264	-	108	132	108	140	-	-
20	150	152	190	-	117	64	-	-	178	95	-	89	-	229	229	273	114	114	137	117	152	-	-
25	160	165	216	-	127	70	-	120	216	108	-	102	-	254	254	308	127	127	154	127	165	-	-
32	180	178	229	-	140	76	-	140	229	114	-	108	-	279	279	349	140	140	175	140	178	-	-
40	200	190	241	-	165	83	-	240	241	121	-	114*	152	305	305	384	152	152	193	165	190	-	-
50	230	216	292	-	203	102	-	250	267	146	-	133	178	368	368	451	184	184	225	216	216	267	-
65	290	241	330	216	216	108	-	270	292	165	-	146	216	419	419	508	210	210	254	241	241	305	-
80	310	283	356	254	241	121	-	280	318	178	-	159	254	381	470	578	190	235	289	283	283	330	-
100	350	305	432	305	292	146	-	300	356	216	-	179	305	457	546	673	229	273	337	305	305	356	-
125	400	381	508	356	330	178	-	325	400	254	-	200	381	551	673	794	279	337	397	381	381	-	-
150	480	403	559	406	356	203	210	350	444	279	-	222	457	610	705	914	305	352	457	403	403	457	-
200	600	419	660	521	495	248	230	400	533	330	-	279	584	737	832	1 022	368	416	511	419	419	521	-
250	730	457	787	635	622	311	250	450	622	394	-	311	711	838	991	1 270	419	495	635	457	457	559	-
300	850	507	838	749	698	349	270	500	711	419	-	356	813	965	1 130	1 422	483	565	711	502	502	635	-
350	980	762	889	-	787	394	290	550	838	850	-	400	889	1 029	1 257	-	514	629	-	572	572	762	-
400	1 100	838	991	-	914	457	310	600	864	950	-	450	991	1 130	1 384	-	660	-	-	610	610	838	-
450	-	914	1 092	-	978	483	330	650	978	1 050	-	500	1 092	1 219	1 537	-	737	-	-	660	660	914	-
500	1 250	991	1 194	-	978	-	350	700	1 016	1 150	-	550	1 194	1 321	1 664	-	825	-	-	711	711	991	-
600	1 450	1 143	1 397	-	1 295	-	390	800	1 346	1 350	-	600	1 350	1 549	1 943	-	991	-	-	813	813	1 143	-
700	-	1 346	1 549	-	1 448	-	430	900	1 499	1 550	-	650	1 549	-	-	-	-	-	-	914	-	-	-
750	-	1 397	1 651	-	1 524	-	-	-	1 594	-	-	700	-	-	-	-	-	-	-	914	-	-	-
800	-	-	1 651	-	1 676	-	-	1 000	1 778	1 750	-	750	-	-	-	-	-	-	-	965	-	-	-
900	-	1 727	-	-	1 956	-	-	1 100	2 083	1 950	-	800	-	-	-	-	-	-	-	1 016	-	-	-
1 000	-	1 981	-	-	-	-	-	1 200	-	2 150	-	850	-	-	-	-	-	-	-	-	-	-	-
1 200	-	-	-	-	-	-	-	1 400	-	-	-	900	-	-	-	-	-	-	-	-	-	-	-

* CTE dimensions for angle pattern valves

NOTE 1: Table 1 gives complete series. In tables 3 to 11 the columns of series can be reduced.

NOTE 2: For certain sizes/types of valves, alternative dimensions are permitted and these are specified in tables 3 to 11.

NOTE 3: Basic series numbers 4, 5, 10, 11, 15, 21, 24, 26, 32 and 33 are the same as the corresponding basic series in EN 558-1 and EN 558-2.

(continued)

Table 1 - Dimensions of basic series (concluded)

All dimensions in millimetres

DN	Basic series																				
	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82*	83*
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-
10	-	130	150	65	70	270	-	-	-	-	-	-	-	-	-	-	-	-	-	65	90
15	-	130	150	65	75	270	-	-	187	203	194	194	279	216	318	108	-	-	-	65	90
20	-	130	150	75	90	270	-	-	187	206	194	194	279	216	318	117	-	-	-	70	90
25	-	130	160	85	100	270	140	140	186	187	210	197	279	216	318	127	-	-	-	85	90
32	-	160	180	100	110	270	165	165	237	-	-	-	-	-	-	140	-	-	-	100	105
40	190	180	210	140	125	270	178	178	232	222	251	235	330	260	359	165	-	-	-	110	105
50	216	210	250	150	150	300	216	216	279	254	286	292	375	318	400	178	-	-	-	125	115
65	241	290	340	170	190	360	254	254	330	292	311	292	375	318	400	190	-	-	-	150	145
80	283	310	380	180	220	390	305	305	368	318	337	318	460	381	498	203	-	-	-	180	155
100	305	350	430	190	270	450	356	406	457	368	394	368	530	406	575	229	-	-	-	210	175
125	-	400	500	200	330	525	432	483	533	-	-	-	-	-	-	-	-	-	-	-	200
150	457	480	550	210	430	600	508	559	610	451	508	508	768	610	819	394	330	403	-	216	200
200	521	600	650	430	460	600	660	711	762	543	610	610	832	762	1 029	457	350	419	-	254	225
250	559	730	775	450	-	730	787	864	914	673	752	762	991	1 016	1 270	457	375	457	-	330	275
300	635	850	900	470	-	850	914	991	1 041	737	819	914	1 130	1 118	1 422	610	400	502	-	394	325
350	762	-	1 025	490	-	980	991	1 067	1 118	851	1 029	914	1 257	1 118	1 422	686	425	550	-	457	375
400	838	-	1 150	510	-	1 100	1 092	1 194	1 245	1 016	1 108	-	1 422	-	1 803	762	450	550	-	495	-
450	914	-	-	-	-	-	-	1 346	1 397	1 143	-	-	1 727	-	-	864	540	600	-	-	-
500	991	-	1 400	550	-	1 250	-	1 473	-	-	-	-	-	-	-	914	560	620	-	-	-
600	1 143	-	-	590	-	-	-	-	-	-	-	-	-	-	-	1 067	600	670	-	-	-
700	1 346	-	-	630	-	-	-	-	-	-	-	-	-	-	-	1 244	670	750	-	-	-
750	1 397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	700	795	-	-	-
800	1 524	-	-	670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
900	1 727	-	-	710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 000	-	-	-	750	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1 200	-	-	-	830	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* CTE dimensions for angle pattern valves

NOTE 1: Table 1 gives complete series. In tables 3 to 11 the columns of series can be reduced.

NOTE 2: For certain sizes/types of valves, alternative dimensions are permitted and these are specified in tables 3 to 11.

NOTE 3: Basic series numbers 4, 5, 10, 11, 15, 21, 24, 26, 32 and 33 are the same as the corresponding basic series in EN 558-1 and EN 558-2.

Table 2 - Tolerances

All dimensions in millimetres

ETE or CTE dimension		Tolerance
above	up to and including	
0	250	± 2
250	500	± 3
500	800	± 4
800	1 000	± 5
1 000	1 600	± 6
1 600	2 500	± 8

Table 3 - Gate valves

All dimensions in millimetres

DN	ETE dimension															
	PN 10, PN 16 Class 150		PN 25, PN 40 Class 300				PN 63, PN 100 Class 600			Class 900	Class 1 500	Class 2 500				
15	–	108	140	140	–	130	–	165	–	–	–	–	–	–	–	–
20	–	117	152	152	–	150	–	190	–	–	–	–	–	–	–	–
25	–	127	165	165	–	160	–	216	–	–	–	140	254	140	308	186
32	–	140	178	178	–	180	–	229	–	–	–	165	279	165	349	232
40	240	165	190	190	240	240	165 ¹⁾	241	240	152	–	178	305	178	384	232
50	250	216	216	216	250	250	216	292	250	178	–	216	368	216	451	279
65	270	241	241	241	270	290	241	330	290	216	–	254	419	254	508	330
80	280	283	283	283	280	310	283	356	310	254	381	305	470	305	578	368
100	300	305	305	305	300	350	305	432	350	305	457	356	546	406	673	457
125	325	381	381	381	325	400	381	508	400	381	559	432	673	483	794	533
150	350	403	403	403	350	450	403	559	450	457	610	508	705	559	914	610
200	400	419	419	419	400	550	419	660	550	584	737	660	832	711	1 022	762
250	450	457	457	457	450	650	457	787	650	711	838	787	991	864	1 270	914
300	500	502	502	502	500	750	502	838	750	813	965	914	1 130	991	1 422	1 041
350	550	572	572	762	550	850	572	889	850	889	1 029	991	1 257	1 067	–	1 118
400	600	610	610	838	600	950	610	991	950	991	1 130	1 092	1 384	1 194	–	1 245
450	650	660	660	914	650	1 050	660	1 092	1 050	1 092	1 219	1 219	1 537	1 346	–	1 397
500	700	711	711	991	700	1 150	711	1 194	1 150	1 194	1 321	1 321	1 664	1 473	–	1 524
600	800	813 ¹⁾	–	1 143	800	1 350	813 ¹⁾	1 397	1 350	1 397	1 549	–	1 943	–	–	–
700	900	914	–	1 346	900	1 550	914	–	1 550	1 549	–	–	–	–	–	–
750	–	914	–	1 397	–	–	914	–	–	1 651	–	–	–	–	–	–
800	1 000	965	–	1 524	1 000	1 750	965	–	1 750	1 778	–	–	–	–	–	–
900	1 100	1 016	–	1 727	1 100	1 950	1 016	–	1 950	2 083	–	–	–	–	–	–
1 000	1 200	–	–	1 981	1 200	2 140	–	–	2 150	–	–	–	–	–	–	–
1 200	–	–	–	–	1 400	–	–	–	–	–	–	–	–	–	–	–
Basic series	15	60	61	4	15 ²⁾	26 ³⁾	60	5	26	33	54	69	55	70	56	71

¹⁾ Alternative ETE dimensions are 190 (DN 40), 787 (DN 600)²⁾ PN 25 only³⁾ PN 40 only