



SLOVENSKI STANDARD
SIST EN ISO 21787:2006/oprA1:2018
01-september-2018

Industrijski ventili - Zaporni ventili iz plastomernih materialov - Dopolnilo A1 (ISO 21787:2006/DAM 1:2018)

Industrial valves - Globe valves of thermoplastics materials - Amendment 1 (ISO 21787:2006/DAM 1:2018)

Industriearmaturen - Ventile aus Thermoplasten - Änderung 1 (ISO 21787:2006/DAM 1:2018)

Robinetterie industrielle - Robinets à soupape en matériaux thermoplastiques - Amendement 1 (ISO 21787:2006/DAM 1:2018)

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ICS:

23.060.10 Zapirni ventili (kroglasti) Globe valves

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DRAFT AMENDMENT

ISO 21787:2006/DAM 1

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Industrial valves — Globe valves of thermoplastics materials

AMENDMENT 1

*Robinetterie industrielle — Robinets à soupape en matériaux thermoplastiques**AMENDEMENT 1*

ICS: 23.060.10

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This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 7, *Valves and auxiliary equipment of plastics materials*.

Industrial valves — Globe valves of thermoplastics materials

AMENDMENT 1

Clause 1

Replace the last paragraph with the following:

This International Standard is concerned with the range of DN

DN 10, DN 15, DN 20, DN 25, DN32, DN 40, DN 50, DN 65, DN 80, DN 100, DN 125, DN 150.

and the range of PN and Class

PN 6, PN 10, PN 16, and Class 150.

Add the following note at the end of Clause 1:

NOTE 3 Different DN and/or PN may be declared by the manufacturer.

Clause 2

Date all the normative references.

Delete the reference to EN 736-1:1995 and EN 736-2:1997, to be moved to the bibliography.

Delete the following references:

ISO 12092:2000, *Fittings, valves and other piping system components made of unplasticized poly(vinyl chloride) (PVC-U), chlorinated poly(vinyl chloride) (PVC-C), acrylonitrile-butadiene-styrene (ABS) and acrylonitrile-styrene-acrylester (ASA) for pipes under pressure — Resistance to internal pressure — Test method*

EN 558-1:1995, *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 558-2:1995, *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 736-3:1999, *Valves - Terminology - Part 3: Definition of terms*

Add the following reference.

ISO 1167-1:2006, *Thermoplastics pipes, fittings and assemblies for the conveyance of fluids — Determination of the resistance to internal pressure — Part 1: General method*

EN 558:2017, *Industrial valves — Face-to-face and centre-to-face dimensions of metal valves for use in flanged pipe systems — PN and Class designated valves*

EN 736-3:2008, *Valves - Terminology - Part 3: Definition of terms*

Replace the reference to ISO 898-1:1999 by the following:

ISO 898-1:2013, *Mechanical properties of fasteners made of carbon steel and alloy steel — Part 1: Bolts, screws and studs with specified property classes — Coarse thread and fine pitch thread*

Replace the reference to ISO 12162:1995 by the following:

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ISO 12162:2009, *Thermoplastics materials for pipes and fittings for pressure applications — Classification, designation and design coefficient*

Replace the reference to ISO 15494:2004 by the following:

ISO 15494:2015, *Plastics piping systems for industrial applications — Polybutene (PB), polyethylene (PE), polyethylene of raised temperature resistance (PE-RT), crosslinked polyethylene (PE-X), polypropylene (PP) — Metric series for specifications for components and the system*

Clause 3

Add the following text after the first paragraph:

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <http://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

Convert all notes to "note of entry".

Replace the note of 3.4 by the following:

Note 1 to entry: The European legislation for pressure equipment designates PS (maximum allowable pressure) irrespective of temperature. The values of PMA and PS are identical at 20 °C.

Replace the note of 3.5 by the following:

Note 1 to entry: Adapted from EN 736-2.

Replace the note of 3.7 by the following:

Note 1 to entry: Adapted from EN 12570.

4.1.2

Replace the subdivision a) of the list by the following:

- a) In accordance with EN 736-3, the valve shall be
- either full bore, or
 - reduced bore, in which case the manufacturer shall specify the pressure loss factor (see [Table 2](#), item 9).

4.3 Table 1

Replace Table 1 with the table below.

Table 1 — Minimum values for rating factor f_r for a lifetime up to 25 years

Temperature °C	Minimum rating factor f_r for body material					
	ABS	PE	PP	PVC-C	PVC-U	PVDF
-40	1,0	1,0	—	—	—	a
-30	1,0	1,0	—	—	—	a
-20	1,0	1,0	—	—	—	1,0
-10	1,0	1,0	—	—	—	1,0
0	1,0	1,0	a	a	a	1,0
+5	1,0	1,0	a	a	a	1,0
10	1,0	1,0	1,0	1,0	1,0	1,0

Table 1 (continued)

Temperature °C	Minimum rating factor f_T for body material					
	ABS	PE	PP	PVC-C	PVC-U	PVDF
20	1,0	1,0	1,0	1,0	1,0	1,0
25	1,0	1,0	1,0	1,0	1,0	1,0
30	0,8	0,76	0,85	0,85	0,80	0,9
40	0,6	0,53	0,70	0,65	0,60	0,8
50	0,4	0,35	0,55	0,50	0,35	0,71
60	0,2	0,24	0,40	0,35	0,15	0,63
70	—	—	0,27	0,25	—	0,54
80	—	—	0,15	0,15	—	0,47
90	—	—	0,08	a	—	0,36
100	—	—	a	a	—	0,25
110	—	—	—	—	—	0,17
120	—	—	—	—	—	0,12
130	—	—	—	—	—	a
140	—	—	—	—	—	a

NOTE These values do not coincide with the relevant factors for pipes and fittings

^a A rating factor for this fluid temperature may be declared by the manufacturer.

4.4.1

Replace the text with the following:

4.4.1 Face-to-face dimension

The face-to-face dimensions of valves for use in flanged pipe systems shall be selected from EN 558.

For all other types of end connection, the face-to-face dimensions shall be the responsibility of the manufacturer.

4.6.1

Replace the text with the following:

4.6.1 Design strength

For each valve body material, the shell design strength shall conform to ISO 9393-2:

- through the shell test;
- through the long-term behaviour test of the complete valve.

4.6.3

Replace the text with the following:

4.6.3 Seat and shell leaktightness

The seat and shell leaktightness shall be verifiable through seat and packing tests carried out in accordance with the requirements of ISO 9393-2.

4.6.5

Replace the text with the following:

4.6.5 Permissible manual forces