SLOVENSKI STANDARD
SIST EN ISO 16138:2006/oprA1:2018

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Industrijski ventili - Ventili z opnami iz plastomernih materialov - Dopolnilo A1 (ISO 16138:2006/DAM 1:2018)

Industrial valves - Diaphragm valves of thermoplastics materials - Amendment 1 (ISO 16138:2006/DAM 1:2018)

Industriearmaturen - Membranventile aus Thermoplasten - Änderung 1 (ISO 16138:2006/DAM 1:2018)

Robinetterie industrielle - Robinets à membrane en matériaux thermoplastiques (ISO 16138:2006/DAM 1:2018)

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ICS:

23.060.99	Drugi ventili	Other valves

SIST EN ISO 16138:2006/oprA1:2018 **en**

DRAFT AMENDMENT

ISO 16138:2006/DAM 1

ISO/TC **138**/SC **7**

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Industrial valves — Diaphragm valves of thermoplastics materials

AMENDMENT 1

Robinetterie industrielle — Robinets à membrane en matériaux thermoplastiques

AMENDEMENT 1

ICS: 23.060.99

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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 — Diaphragm valves of thermoplastics materials

AMENDMENT 1

Clause 1

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:

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 to 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.

4.3 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
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

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.

Table 1 *(continued)*

Temperature °C	Minimum rating factor f_r for body material					
	ABS	PE	PP	PVC-C	PVC-U	PVDF
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 dimensions

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

The hand-wheel rim forces to open and fully close the valve shall not exceed the values given for the operating manual force *F* in EN 12570.

The maximum manual force F_s used to calculate the size of the operating element in EN 12570 may not be necessary.

All functional parts shall be serviceable after the application of the force *F*.

WARNING — Forces Fs exceeding those given in EN 12570 **could adversely influence the diaphragm.**

5.2.5

Replace the text with the following:

5.2.5 Long-term behaviour test of the complete valve