



SLOVENSKI STANDARD
SIST EN ISO 16137:2006/oprA1:2018
01-september-2018

**Industrijski ventili - Protipovratni ventili iz plastomernih materialov - Dopolnilo A1
(ISO 16137:2006/DAM 1:2018)**

Industrial valves - Check valves of thermoplastics materials - Amendment 1 (ISO 16137:2006/DAM 1:2018)

Industriearmaturen - Rückflussverhinderer aus Thermoplasten - Änderung 1 (ISO 16137:2006/DAM 1:2018)

Robinetterie industrielle - Clapets de non-retour en matériaux thermoplastiques - Amendement 1 (ISO 16137:2006/DAM 1:2018)

Ta slovenski standard je istoveten z: EN ISO 16137:2006/prA1

ICS:

23.060.50 Blokirni ventili Check valves

SIST EN ISO 16137:2006/oprA1:2018 en

DRAFT AMENDMENT

ISO 16137:2006/DAM 1

ISO/TC 138/SC 7

Secretariat: UNI

Voting begins on:
2018-07-02Voting terminates on:
2018-09-24

Industrial valves — Check valves of thermoplastic materials

AMENDMENT 1

*Robinetterie industrielle — Clapets de non-retour en matériaux thermoplastiques**AMENDEMENT 1*

ICS: 23.060.50

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING



Reference number
ISO 16137:2006/DAM 1:2018(E)

© ISO 2018



COPYRIGHT PROTECTED DOCUMENT

© ISO 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

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 — Check 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 8, DN 10, DN 15, DN 20, DN 25, DN32, 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 500 and DN 600.

and the range of PN and Class

PN 6, PN 10, PN 16, PN 25 and Class 150 and Class 300.

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 16137:2006/DAM 1:2018(E)

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

In the subdivision a) of the list, add the following NOTE:

NOTE The installer shall verify that the complete operation of the clapet is not impeded by flange adaptors used to connect the valve to the pipeline.

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

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_T for body material					
	ABS	PE	PP	PVC-C	PVC-U	PVDF
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 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.

The seat leaktightness shall be in accordance with the requirements of EN 12266-1. The leakage rate, applied only when discharging to room temperature, shall be not greater than rate F in EN 12266-1 (i.e.: $1 \times \text{DN}$ [mm³/s] for liquids, $3000 \times \text{DN}$ [mm³/s] for gases).

5.2.5

Replace the text with the following: