

#### Bezpečnostné zariadenia na ochranu proti nadmernému tlaku Časť 2: Bezpečnostné zariadenia s poistnou membránou (ISO 4126-2: 2018)

STN EN ISO 4126-2

13 6668

Safety devices for protection against excessive pressure - Part 2: Bursting disc safety devices (ISO 4126-2:2018)

Táto norma obsahuje anglickú verziu európskej normy. This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 10/19

Obsahuje: EN ISO 4126-2:2019, ISO 4126-2:2018

Oznámením tejto normy sa ruší STN EN ISO 4126-2 (13 6668) z decembra 2003

### EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

**EN ISO 4126-2** 

March 2019

ICS 13.240

Supersedes EN ISO 4126-2:2003

#### **English Version**

## Safety devices for protection against excessive pressure - Part 2: Bursting disc safety devices (ISO 4126-2:2018)

Dispositifs de sécurité pour protection contre les pressions excessives - Partie 2: Dispositifs de sûreté à disque de rupture (ISO 4126-2:2018)

Sicherheitseinrichtungen gegen unzulässigen Überdruck - Teil 2: Berstscheibeneinrichtungen (ISO 4126-2:2018)

This European Standard was approved by CEN on 3 December 2018.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

#### EN ISO 4126-2:2019 (E)

Contents	Page
European foreword	3
Annex ZA (informative) Relationship between this European Standard and the Essential	
Requirements of EU Directive 2014/68/EU (PED) aimed to be covered	4

#### **European foreword**

This document (EN ISO 4126-2:2019) has been prepared by Technical Committee ISO/TC 185 "Safety devices for protection against excessive pressure" in collaboration with 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 September 2019, and conflicting national standards shall be withdrawn at the latest by September 2019.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 4126-2:2003.

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

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

#### **Endorsement notice**

The text of ISO 4126-2:2018 has been approved by CEN as EN ISO 4126-2:2019 without any modification.

#### Annex ZA

(informative)

## Relationship between this European Standard and the Essential Requirements of EU Directive 2014/68/EU (PED) aimed to be covered

This European Standard has been prepared under a Commission's standardization request to provide one voluntary means of conforming to Essential Requirements of New Approach Directive 2014/68/EU, Pressure Equipment Directive (PED).

Once this document is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this document given in Table ZA.1 confers, within the limits of the scope of this document, a presumption of conformity with the corresponding essential requirements of that Directive and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of the Directive 2014/68/EU

Essential Requirements of Directive 2014/68/EU	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
Clause 1.3 and 3.4	11	Protection against misuse and instructions for the user
Clause 2.1	5, 6.1.2, 6.2, 7 to 10, 12	General design
Clause 2.2.2	6.1.1	Design for adequate strength The experimental method limited to PN x DN less than 3 000
Clause 2.3	6.1.2	Safe operation
Clause 2.6	4.3	Corrosion
Clause 3.1.2, paragraphs 2 and 3	11.3	Permanent joining
Clause 3.3	17	Marking and labelling

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this document should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this document.

# INTERNATIONAL STANDARD

1SO 4126-2

Second edition 2018-12

# Safety devices for protection against excessive pressure —

## Part 2: **Bursting disc safety devices**

Dispositifs de sécurité pour protection contre les pressions excessives —

Partie 2: Dispositifs de sûreté à disque de rupture



ISO 4126-2:2018(E)



#### **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

Cor	Contents		
Fore	word		v
Intro	duction	1	vi
1	Scope	2	1
2	Norm	native references	1
3	Term	s and definitions	1
4		rials	
•	4.1	Selection of materials	
	4.2	Material specifications	4
	4.3	Protection from corrosion	
5		s of bursting discs	
	5.1 5.2	Conventional domed bursting discs (Forward acting)  Reverse domed bursting discs (Reverse acting)	
	5.2	Flat bursting discs	
	5.4	Other types and designs	
6	Burst	ting disc holders	8
	6.1	Design	
		6.1.1 Pressure-containing capability	
	6.2	Types	
	6.3	Connections	
7	Back pressure supports		
	7.1	General	
	7.2 7.3	Opening back pressure supports	11
0			
8	-	perature shields	
9		ning rings	
10	Gask	ets/seals	11
11		nbly of bursting disc safety devices	
		General  Pureting disc sefety devices with replaceble bureting disc assemblies	
	11.2 11.3	Bursting disc safety devices with replaceable bursting disc assemblies Bursting disc safety devices with non-replaceable bursting disc assemblies	
12		fied bursting pressure requirements	
	-		
13	-	ection by the manufacturer	
14	Test p 14.1	procedures General	
	14.1	Pressure testing	
	14.3	Burst testing	14
		14.3.1 General 45.00 20.00	
		<ul> <li>14.3.2 Coincident temperature in the range 15 °C to 30 °C.</li> <li>14.3.3 Coincident temperature above or below the range 15 °C to 30 °C.</li> </ul>	
		14.3.4 Procedure for burst testing	14
	14.4	Leak testing.	16
		14.4.1 General	
	14.5	14.4.2 Selection of acceptable leakage rate	
15		fication	
<b>16</b>	Produ	uct designation	17

iii

#### STN EN ISO 4126-2: 2019

#### ISO 4126-2:2018(E)

17	Mark	ing	17
	17.1	General	17
	17.2	Bursting discs or bursting disc assemblies	17
	17.3	Bursting disc holders	18
	17.4	Bursting disc safety devices with non-replaceable bursting disc assemblies	18
	17.5	Ancillary components	19
		Omission of markings	
18	Packa	ging and storage	19
Annex	A (info	ormative) Packaging: marking, assembly instructions and documentation	20

#### 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 <a href="www.iso.org/directives">www.iso.org/directives</a>).

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 <a href="https://www.iso.org/patents">www.iso.org/patents</a>).

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

For an explanation of 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 <a href="https://www.iso.org/iso/foreword.html">www.iso.org/iso/foreword.html</a>.

This document was prepared by Technical Committee ISO/TC 185, *Safety devices for protection against excessive pressure*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at <a href="https://www.iso.org/members.html">www.iso.org/members.html</a>.

This second edition cancels and replaces the first edition (ISO 4126-2:2003), which has been technically revised. The main changes compared to the previous edition are as follows:

- non-applicable references have been removed;
- material references (old <u>Annexes A</u> and B) have been removed;
- new Annex A has been added.

A list of all parts in the ISO 4126 series can be found on the ISO website.

#### Introduction

A bursting disc safety device is a non-reclosing pressure relief device used to protect pressure equipment such as pressure vessels, piping, gas cylinders or other enclosures from excessive pressure and/or excessive vacuum.

A bursting disc safety device typically comprises an assembly of components including a bursting disc, a bursting disc holder and, where necessary, other components such as back pressure supports, stiffening rings, etc.

The bursting disc is the pressure-sensitive part of the bursting disc safety device and is designed to open by bursting at a specified pressure. There are many different types of bursting disc safety devices manufactured in corrosion resistant materials, both metallic and non-metallic, to cover a wide range of nominal sizes, burst pressures and temperatures.

### Safety devices for protection against excessive pressure —

#### Part 2:

### **Bursting disc safety devices**

#### 1 Scope

This document specifies the requirements for bursting disc safety devices.

It includes the requirements for the design, manufacture, inspection, testing, certification, marking, and packaging.

#### 2 Normative references

There are no normative references in this document.

koniec náhľadu – text ďalej pokračuje v platenej verzii STN