

Industrial valves - Measurement, test and qualification procedures for fugitive emissions - Part 2: Production acceptance test of valves (ISO 15848-2:2015)

## EESTI STANDARDI EESSÕNA

## NATIONAL FOREWORD

|                                                                                                                     |                                                                                                                                    |
|---------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| See Eesti standard EVS-EN ISO 15848-2:2015 sisaldab Euroopa standardi EN ISO 15848-2:2015 ingliskeelset teksti.     | This Estonian standard EVS-EN ISO 15848-2:2015 consists of the English text of the European standard EN ISO 15848-2:2015.          |
| Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas                                                   | This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation. |
| Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 10.06.2015. | Date of Availability of the European standard is 10.06.2015.                                                                       |
| Standard on kättesaadav Eesti Standardikeskusest.                                                                   | The standard is available from the Estonian Centre for Standardisation.                                                            |

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile [standardiosakond@evs.ee](mailto:standardiosakond@evs.ee).

ICS 23.060.01

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:

Aru 10, 10317 Tallinn, Eesti; koduleht [www.evs.ee](http://www.evs.ee); telefon 605 5050; e-post [info@evs.ee](mailto:info@evs.ee)

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:

Aru 10, 10317 Tallinn, Estonia; homepage [www.evs.ee](http://www.evs.ee); phone +372 605 5050; e-mail [info@evs.ee](mailto:info@evs.ee)

English Version

**Industrial valves - Measurement, test and qualification  
procedures for fugitive emissions - Part 2: Production  
acceptance test of valves (ISO 15848-2:2015)**

Robinetterie industrielle - Mesurage, essais et modes  
opératoires de qualification pour émissions fugitives - Partie  
2: Essais de réception en production des appareils de  
robinetterie (ISO 15848-2:2015)

Industriearmaturen - Mess-, Prüf- und  
Qualifikationsverfahren für flüchtige Emissionen - Teil 2:  
Fertigungsbegleitende Abnahmeprüfung von Armaturen  
(ISO 15848-2:2015)

This European Standard was approved by CEN on 7 February 2015.

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, 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: Avenue Marnix 17, B-1000 Brussels**

## Foreword

This document (EN ISO 15848-2:2015) has been prepared by Technical Committee ISO/TC 153 “Valves” 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 December 2015, and conflicting national standards shall be withdrawn at the latest by December 2015.

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

This document supersedes EN ISO 15848-2:2006.

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, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

### Endorsement notice

The text of ISO 15848-2:2015 has been approved by CEN as EN ISO 15848-2:2015 without any modification.

# Contents

Page

|                                                              |           |
|--------------------------------------------------------------|-----------|
| <b>Foreword</b> .....                                        | <b>iv</b> |
| <b>Introduction</b> .....                                    | <b>v</b>  |
| <b>1 Scope</b> .....                                         | <b>1</b>  |
| <b>2 Normative references</b> .....                          | <b>1</b>  |
| <b>3 Terms and definitions</b> .....                         | <b>1</b>  |
| <b>4 Preparation of test valves</b> .....                    | <b>1</b>  |
| 4.1 Valve selection.....                                     | 1         |
| 4.2 Preconditioning.....                                     | 1         |
| 4.3 Stem (or shaft) seal adjustment.....                     | 2         |
| <b>5 Test conditions</b> .....                               | <b>2</b>  |
| 5.1 Test fluid.....                                          | 2         |
| 5.2 Leakage measurement.....                                 | 2         |
| 5.3 Test pressure.....                                       | 2         |
| 5.4 Test temperature.....                                    | 2         |
| <b>6 Test procedure and evaluation of test results</b> ..... | <b>2</b>  |
| 6.1 Measurement of stem (or shaft) seal leakages.....        | 2         |
| 6.2 Measurement of leakage of body seal(s).....              | 3         |
| <b>7 Marking</b> .....                                       | <b>3</b>  |
| <b>8 Certification of compliance</b> .....                   | <b>3</b>  |

## 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](http://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](http://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 meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT), see the following URL: [Foreword — Supplementary information](#).

The committee responsible for this document is ISO/TC 153, *Valves*, Subcommittee SC 1, *Design, manufacture, marking and testing*.

This second edition cancels and replaces the first edition (ISO 15848-2:2006) which has been technically revised. The main changes are the following:

- tightness classes ([Table 1](#)) are the following: A: 50 ppmv; B: 100 ppmv; C: 200 ppmv
- if the reading exceeds the values of the required tightness class according to [Table 1](#) or [Table 2](#), the test is considered as having failed. Then, a corrective action is proposed and agreed with the purchaser or the lot of valves is rejected.

ISO 15848 consists of the following parts, under the general title *Industrial valves — Measurement, test and qualification procedures for fugitive emissions*:

- *Part 1: Classification system and qualification procedures for type testing of valves*
- *Part 2: Production acceptance test of valves*

## Introduction

The aim of this part of ISO 15848 is to establish standard practice for the evaluation of production valves, the design of which has been successfully type-tested according to ISO 15848-1.

# Industrial valves — Measurement, test and qualification procedures for fugitive emissions —

## Part 2: Production acceptance test of valves

### 1 Scope

This part of ISO 15848 specifies test procedures for the evaluation of external leakage of valve stems or shafts and body joints of isolating valves and control valves intended for application with volatile air pollutants and hazardous fluids.

End connection joints, vacuum application, effects of corrosion, and radiation are excluded from this part of ISO 15848.

The production acceptance test is intended for standard production valves where fugitive emissions standards are specified.

### 2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 15848-1:2015, *Industrial valves — Measurement, test and qualification procedures for fugitive emissions — Part 1: Classification system and qualification procedures for type testing of valves*

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 15848-1 and the following apply.

#### 3.1

##### **production acceptance test**

test carried out on production valves to verify conformance with the requirements of this part of ISO 15848

### 4 Preparation of test valves

#### 4.1 Valve selection

The sampling percentage shall be subject to an agreement between the manufacturer and the purchaser, with a minimum of one valve of the lot, and shall be selected at random from each production lot of valves per valve type, pressure class, and nominal size.

#### 4.2 Preconditioning

This part of ISO 15848 is applicable to valves, the design of which has been successfully type-tested according to ISO 15848-1. The selected valves shall have been successfully tested according to the relevant production test standards and the purchaser's specifications, prior to the acceptance test specified in this part of ISO 15848.