

---

---

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

**Part 2:  
Production acceptance test of valves**

*Robinetterie industrielle — Mesurage, essais et modes opératoires de  
qualification pour émissions fugitives —*

*Partie 2: Essais de réception en production des appareils de  
robinetterie*





**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2015

All rights reserved. Unless otherwise specified, 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  
Case postale 56 • CH-1211 Geneva 20  
Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
E-mail [copyright@iso.org](mailto:copyright@iso.org)  
Web [www.iso.org](http://www.iso.org)

Published in Switzerland

# 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.