Third edition 2018-09

Corrected version 2019-04

# Gas cylinders — Welded aluminiumalloy, carbon and stainless steel gas cylinders — Periodic inspection and testing

Bouteilles à gaz — Bouteilles à gaz soudées en alliage d'aluminium, carbone et acier inoxydable — Contrôles et essais périodiques



#### ISO 10460:2018(E)

This is a preview of "ISO 10460:2018". Click here to purchase the full version from the ANSI store.



#### **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

Contents			
Forev	word		iv
Intro	ductio	on	v
1	Scop	oe	1
2	-	native references	
3		ns and definitions	
4	Intervals between periodic inspection and testing		2
5	Periodic inspection and testing procedures		
	5.1	General	2
	5.2	Depressurization and devalving procedures	
		5.2.1 Depressurization	
	<b>5</b> 0	5.2.2 Devalving	
	5.3	External visual inspection	
		5.3.1 General 5.3.2 Preparation 5.3.2	
		5.3.3 Procedure	
		5.3.4 Inspection result	
	5.4	Internal visual inspection	
	5.1	5.4.1 General	
		5.4.2 Preparation	
		5.4.3 Cleaning	
		5.4.4 Inspection result	
	5.5	Cylinder neck inspection	
		5.5.1 Cylinder-to-valve threads	6
		5.5.2 Other neck surfaces	
		5.5.3 Neckring and/or collar attachment	
	5.6	Pressure test	
		5.6.1 General	
		5.6.2 Test equipment	
		5.6.3 Test criteria	
	5.7	5.6.4 Acceptance criteria	
	3.7	5.7.1 General	
		5.7.2 Major repairs	
		5.7.3 Minor repairs	
	5.8	Inspection of valve and other accessories	
	5.9	Final operations	
		5.9.1 Drying, cleaning, painting and coating	
		5.9.2 Cylinder revalving	
		5.9.3 Cylinder tare check	
		5.9.4 Cylinder marking after periodic inspection and testing	
		5.9.5 Reference to next periodic inspection and testing date	
	E 40	5.9.6 Reports	11
	5.10	Rejection and rendering cylinders unserviceable	
		formative) Intervals between periodic inspections and tests	
Anne	x B (in	formative) Gas cylinder periodic inspection date rings	14
Anne		ormative) Description and evaluation of imperfections and conditions for	
	•	ction at visual inspection	
Anne	x D (in	formative) Gases corrosive to carbon steel cylinders	21
Bibli	ograph	hy	22

## **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 58, *Gas cylinders*, Subcommittee SC 4, *Operational requirements of gas cylinders*.

This third edition cancels and replaces the second edition (ISO 10460:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

- inclusion of text to evaluate welded aluminium-alloy and welded stainless steel cylinders;
- removal of conformity assessment requirements;
- deletion of text on blocked valves as this edition now references a specific standard.

This corrected version of ISO 10460:2018 incorporates the following correction:

— In Table C.1, in the fourth column of the "Stamping" row, the "c" at the end of "Render unserviceablec" has been changed to superscript to lead to a footnote at the bottom of the table.

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>.

### Introduction

This document contains requirements that reflect current practice and experience.

This document provides information and procedures for the periodic inspection and testing of welded cylinders and the condition of the test equipment. The principal aim of periodic inspection and testing is that at the satisfactory completion of the inspection the cylinders may be reintroduced into service for a further period of time.

This document has been written so that it is suitable to be referenced in the UN *Model Regulations*[1].