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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 32566.2-2025

**Welded stainless steel cylinders - Part 2: Test pressure greater
than 6MPa**

不锈钢焊接气瓶 第2部分：试验压力大于6MPa的气瓶

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Symbols and instructions	
5 Materials and Heat Treatment	
5.1 General Principles	
5.2 Material Category	
5.3 Heat Treatment	
5.4 Test requirements	
6 Design	
6.1 General requirements	
6.2 Calculation of bottle wall thickness	
6.3 Convex Head Design	
6.4 Minimum wall thickness requirements	
6.5 Other shapes of heads	
6.6 Opening Design	
6.7 Valve seat (plug seat)	
7 Manufacturing and process requirements	
7.1 General requirements	
7.2 Welding	
7.3 Welded joints of pressure-bearing parts	
7.4 Non-pressure accessories	
7.5 Valve Protection	
7.6 Bottle thread	
7.7 Visual Inspection	
8 Type test	
8.1 General requirements	
8.2 Verification and testing	
8.3 Test requirements	
8.4 Type test certificate	

9 Batch test

9.1 General requirements

9.2 Data

9.3 Tensile test

9.4 Bending test

9.5 Impact test

9.6 Macroscopic inspection of weld sections

9.7 Inspection and Verification

10 Check each one

10.1 Voltage test

10.2 Hardness test

10.3 Leakage test

11 Requirements when test results are unsatisfactory

12 Sign

13 Product Certificate and Batch Quality Certificate

Appendix A (Informative) Comparison table of structure numbers between this document and ISO 18172-2:2007

Appendix B (Informative) List of technical differences between this document and ISO 18172-2:2007 and their causes

Appendix C (Normative) Radiographic Testing of Welds

C.1 General requirements

C.2 Requirement

C.3 Defect Detection

Appendix D (Normative) Assessment of manufacturing defects and acceptance criteria during visual inspection of cylinders

D.1 Overview

D.2 General requirements

D.3 Manufacturing defects

D.4 Unqualified cylinders

Appendix E (Informative) Certificate of Conformity and Batch Quality Certificate Template

E.1 Certificate

E.2 Batch Quality Certificate

Reference

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 32566. GB/T 32566 has published the following parts.

---Stainless steel welded gas cylinders (GB/T 32566-2016);

--- Stainless steel welded gas cylinders Part 2: Gas cylinders with test pressure greater than 6 MPa.

This document is modified to adopt ISO 18172-2:2007 "Refillable stainless steel welded gas cylinders Part 2: Test pressure greater than 6MPa". Compared with ISO 18172-2:2007, this document has many structural adjustments. See Appendix A for the table. This document has many technical differences compared to ISO 18172-2:2007.

A list of these technical differences and their reasons is given in Appendix B. The following editorial changes have been made to this document.

--- Modified the standard name;

--- Some clauses adjust the requirements in brackets in ISO 18172-2:2007 to the requirements in the clauses, that is, delete the brackets (see 5.1.2, 5.3.2, 6.4.3, 7.2.1, 7.7.2.3, 8.1.1, 8.2.1, 9.1, 9.3.2.1, 9.3.3.2, Figure 5, 9.5.4), improve document organization and readability;

--- After translation, some clauses in ISO 18172-2:2007 were deleted (see 5.1.3, 5.1.7, 8.3.1.2, C.2.4, D.2.1, D.2.2, D.4), to suit our language habits and expressions; consistent approach;

---ISO 18172-2 stipulates that the compatibility of material grades and gases should comply with ISO 11114-1, but ISO 11114-1 does not. Therefore, the compatibility of the bottle material and the filling gas is modified in this document to refer to ISO 11114-1 (see 5.1.2);

---Delete the unit bar in other chapters, clauses and charts, unify the pressure unit to MPa, and the corresponding wall thickness calculation formula is also changed. Modified (see 6.2);

--- Describe "new design test" as "type test" (see Chapter 8), which is consistent with the requirements of my country's safety technical regulations;

--- ISO 18172-2 does not indicate the thickness of t in Figure 7, but it is indicated in Figure 8. This document uses the symbol t in the description. The reference legend is changed to Figure 8;

--- ISO 18172-2 7.2.2 and 7.3.2 specify the number of test bottles, which are inconsistent

with each other. This document clarifies the number of pressure cycle test bottles. The quantity is 3 (see 8.2.2);

--- Deleted the repeated description of the location of the intergranular corrosion test specimen in ISO 18172-2:2007 (see 8.3.3);

---Because the template of type test certificate has been specified in the safety technical specification for special equipment, the type test certificate clause in this document has been deleted. Reference to informative appendix (see 8.4);

--- Corrected the incorrect description of the number of corrosion test specimens in Figure 5 of ISO 18172-2, and changed it to 2 pieces (see Figure 5, longitudinal weld, girth weld 1 each);

--- Corrected the incorrect description of the reference clause in the reference number explanation 3 of Figure 5 of ISO 18172-2. The referenced clause is weld tensile strength Test and relevant provisions of weld bend test (see Figure 5);

--- Corrected the text error in ISO 18172-2 regarding the cylinder diameter range applicable to longitudinal impact test specimens (see 9.5.6).

Introduction

In order to adapt to the development of socialist market economy, implement the grand goal of the "One Belt and One Road" construction, expand international trade, and improve our GB/T 32566 series of standards adopts ISO 18172 in accordance with the modification.

By converting ISO standards, my country can develop various low-pressure and high-pressure non-conductive products at a relatively fast pace.

Stainless steel welded gas cylinders contribute to the development of my country's industry.

GB/T 32566 "Stainless Steel Welded Gas Cylinders" is intended to be divided into the following two parts.

--- Part 1: Cylinders with a test pressure less than or equal to 6 MPa. The purpose is to provide Requirements for the design, manufacture and inspection of stainless steel welded gas cylinders. This part is drafted based on ISO 18172-1:2007 and replaces

GB/T 32566-2016 "Stainless steel welded gas cylinders";

--- Part 2: Gas cylinders with test pressure greater than 6 MPa. The purpose is to provide the test pressure greater than 6 MPa stainless steel welded gas cylinders This part is drafted based on ISO 18172-2:2007.

The technical provisions of this document include the technical requirements that need to be followed during the production process (i.e. design, manufacturing and inspection) of stainless steel welded gas cylinders.