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

GB/T 43322-2023

Gas welding equipment - Air-aspirated welding blowpipes

气焊设备 空气焊炬

(English Translation)

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Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Type Classification	2
5 Components	4
6 Technical requirements	5
7 Test	6
8 Logo	8
9 Letter code for gas used	8
10 User Manual	8
Appendix A (informative) Technical differences between this document and ISO 9012:2008 and their reasons	10

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting:

This document has been modified to adopt ISO 9012:2008 "Specifications and Tests for Air-Inhaled Hand Torches of Gas Welding Equipment":

Compared with ISO 9012:2008, this document has made the following structural adjustments:

---Figure 2 and Figure 3 of this document correspond to Figure 2 of ISO 9012:2008;

---Figure 4 and Figure 5 of this document correspond to Figure 3 of ISO 9012:2008;

---Figure 6 and Figure 7 of this document correspond to Figure 4 of ISO 9012:2008;

---Table 1 of this document corresponds to Table 2 of ISO 9012:2008;

---Added Appendix A (informative) "Technical differences between this document and ISO 9012:2008 and their reasons";

---Deleted the reference to ISO 9012:2008:

Compared with ISO 9012:2008, this document has many technical differences: Vertical text is used in the outer margin of the clauses involved:

Single lines (l) are marked: A list of these technical differences and their causes is provided

in Appendix A:

The following editorial changes have been made to this document:

- Modified the standard name;
- Added notes on the design purpose of the air torch (see 3.1);
- Adjusted the order of indexing numbers in Figure 1 and added a description of the indexing numbers (see Figure 1);
- Re-adjusted the order of expression of the index numbers in Figures 2 to 7, and added the corresponding index number description (see Figure 2~Figure 7);
- Deleted Table 1 of ISO 9012:2008;
- Add unit conversion content and convert gas pressure units to MPa (see 6.6, 7:7, 7:9);
- Convert the temperature unit K to °C (see 7.4) and degrees Celsius (see Table 1);
- Deleted the graphic citation in the title of Chapter 5 of ISO 9012:2008 and marked it in the text;
- Deleted the note in 6:5 of ISO 9012:2008:

Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents:

1 Scope

This document stipulates the terms and definitions, form classification, components, technical requirements, testing, labeling, use of gas torches for gas welding equipment:

font's letter code and instruction manual:

This document applies to brazing, soldering, heating, melting and other thermal processing processes that use gas and inhaled air to mix and burn to form Flame manual welding torch (hereinafter referred to as the welding torch):

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 5107 Hose joints for gas welding equipment, welding, cutting and related process

equipment GB/T 3375 Welding terminology GB/T 40337 Air tightness of gas welding and related process equipment (GB/T 40337-2021, ISO 9090:2019, MOD) GB/T 40371 Materials for welding, cutting and related process equipment of gas welding equipment (GB/T 40371-2021, ISO 9539: 2010,MOD)

3 Terms and definitions

The terms and definitions defined in GB/T 3375 and the following apply to this document:

air torchair-aspiratedblowpipe the gas flows out of the gas injector in a gaseous state, mixes with sufficient air sucked in the atmosphere in the mixing zone, and burns at the nozzle to form a process that can Torch with flame:

Note: The air torch is designed to include brazing, soldering, heating, melting and other related thermal processing processes: Illustration of the mixing zone structure of an air torch figure 1:

Indexing serial number description:

1---gas injector;

2---Air suction hole;

3---Air suction hole adjustment device:

Figure 1 Schematic diagram of the mixing zone structure (injection pipe)