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

GB/T 46073-2025

**Gas welding equipment - Quick-action couplings with shut-off
valves for welding, cutting and allied processes**

气焊设备 焊接、切割及相关工艺用带截止阀的快速接头

(English Translation)

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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 is modified to adopt ISO 7289:2018 "Quick couplings with shut-off valves for welding, cutting and related processes of gas welding equipment".

This document has undergone the following structural adjustments compared to ISO 7289:2018.

---Added 9.8 pressure loss test.

This document differs significantly from ISO 7289:2018 in several technical aspects. The relevant clauses are indicated in vertical margins.

Single lines (?) are indicated. A summary of these technical differences and their reasons is provided in Appendix A.

The following editorial changes have been made to this document.

---Added Appendix A (Informative) "Technical differences between this document and ISO 7289:2018 and the reasons thereof".

---Added unit conversion information, converting gas pressure units to MPa and stress units to N;

---The structure of Tables 1 and 2 has been adjusted to facilitate the application of this document;

---GB/T 2550 has been added to the references.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This standard was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Welding and Related Processes (SAC/TC55).

1 Scope

This document specifies the classification, installation, design requirements, technical requirements, and test methods for quick couplings with shut-off valves.

This document applies to quick couplings with shut-off valves that connect pressure reducers and welding/cutting torches used in welding, cutting, and related processes.

This document applies to rubber hoses that mate with those specified in GB/T 2550 or ISO 3821 and threaded connections specified in ISO/T R28821.

The quick connector used.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 3375 Welding Terminology GB/T 22076 Pneumatic Cylindrical Quick-Connect Couplings (GB/T 22076-2024, ISO 6150:2018, MOD) GB/T 40337 Gas welding and related process equipment air tightness (GB/T 40337-2021, ISO 9090:2019, MOD) GB/T 40371 Materials for gas welding equipment, cutting and related process equipment (GB/T 40371-2021, ISO 9539.

2010, MOD)

GB/T 46082.1 Safety devices for gas welding equipment - Part 1: Flame arresters (GB/T

46082.1-2025, ISO 5175-1.

2017, MOD)

3 Terms and Definitions

The terms and definitions defined in GB/T 3375 and GB/T 40337, as well as the following terms and definitions, apply to this document.

Female element of internal thread connector A component of the quick connector, equipped with an automatic shut-off device in the unconnected state to prevent internal gas leakage.

maleelement

The components of the quick coupling are used to connect with the internal threaded coupling element (3.1) (see Figure 1).

4 Classification

Based on the gas used in their design, quick couplings are classified as follows.

- a) Type O - Applicable to oxygen;
- b) Type F - Applicable to natural gas;
- c) Type N---Suitable for other welding-specific gases.