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

GB 15579.11-2012

Replacing GB/T 15579.11-2012

Arc welding equipment - Part 11: Electrode holders

弧焊设备 第11部分：电焊钳

(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 Part 11 of GB/T 15579 "Arc Welding Equipment". GB/T 15579 has already published the following parts.

- Part 1: Welding Power Sources;
- Part 2: Liquid Cooling Systems;
- Part 3: Arc initiation and stabilization devices;
- Part 4: Periodic Inspections and Tests;
- Part 5: Wire Feeding Device;
- Part 6: Load-limiting devices;
- Part 7: Welding Torch (Gun);
- Part 8: Gas Circulation Devices for Welding and Plasma Cutting Systems;
- Part 9: Installation and Use;
- Part 10: Electromagnetic Compatibility (EMC) Requirements;
- Part 11: Welding Pliers;
- Part 12: Welding Cable Coupling Devices;
- Part 13: Welding Clamps;
- Part 14: Calibration, Validation and Conformity Testing.

This document supersedes GB/T 15579.11-2012 "Arc Welding Equipment - Part 11: Welding Guns", and is consistent with GB/T 15579.11-2012.

- a) Change the type A welding clamp to a class A welding clamp (see 3.6, 2012 edition 3.6);
- b) Change the type B welding clamp to a class B welding clamp (see 3.7, 2012 edition 3.7);
- c) Increased component compliance requirements (see 5.3);
- d) The operational requirements have been changed (see Chapter 7, Chapter 7 of the 2012 edition);
- e) The requirements for protection against direct contact have been changed (see 8.1, 2012 edition of 8.1);
- f) Increased limits on conductor displacement distance (see 10.3);
- g) Added assembly requirements for vertical drop tests of welding clamps (see 10.4);
- h) The requirements for the instruction manual have been changed (see Chapter 12, Chapter 12 of the 2012 edition).

This document is modified to adopt IEC 60974-11:2021 "Arc welding equipment - Part 11: Welding clamps".

The technical differences between this document and IEC 60974-11:2021, and the reasons therefor, are as follows.

---The data regarding rated current ratings and cable cross-sectional area ranges in the size requirements for welding clamps (see Chapter 6) have been revised to comply with national standards.

The provisions are also consistent with relevant standards such as GB/T 8118 and IEC 60974-12;

---The temperature for the damp heat treatment was changed (see 8.2). Because my country has a vast territory, and summers in the south are typically hot and humid, therefore...

The document, in accordance with GB/T 2423.3, specifies a damp heat treatment temperature of 40°C. This conforms to national conditions and is also consistent with GB/T 8118, etc.

The relevant standards should be consistent and coordinated.

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

This document was proposed by the China Electrical Equipment Industry Association.

This document is under the jurisdiction of the National Technical Committee on Standardization of Welding Machines (SAC/TC70).

Introduction

Arc welding equipment mainly includes power supplies for arc welding and similar processes (such as arc welding) powered by the power grid or batteries, as well as those driven by mechanical equipment.

Power supplies and plasma cutting systems, auxiliary equipment, welding accessories, etc.

GB/T 15579 "Arc Welding Equipment" specifies the safety requirements, performance requirements, and electromagnetic compatibility requirements for arc welding equipment, and is proposed to be standardized by 14 departments.

Composed of components.

---Part 1: Welding Power Sources. The purpose is to specify the safety and performance requirements for welding power sources.

---Part 2: Liquid Cooling Systems. The purpose is to specify the safety requirements and

structural specifications for liquid cooling systems of auxiliary equipment such as welding torches (guns).

Structural requirements.

---Part 3: Arc Ignition and Stabilization Devices. The purpose is to specify the safety requirements for auxiliary equipment arc ignition and stabilization devices.

---Part 4: Periodic Inspections and Tests. The purpose is to specify the procedures for periodic inspections and tests of welding power sources and to ensure post-repair maintenance.

Electrical safety requirements.

---Part 5: Wire Feeding Device. The purpose is to specify the safety and performance requirements for wire feeding devices used in welding accessories.

---Part 6: Equipment for Limiting Loads. The purpose is to specify the connection to a single-phase common low-voltage power supply system for use by non-specialists.

---Part 7: Welding Torch (Gun). The purpose is to specify the safety and structural requirements for welding accessories, specifically welding torches (guns).

---Part 8: Gas Circulation System for Welding and Plasma Cutting Systems. The purpose is to specify the flammable gas or oxygen supply for auxiliary equipment.

Safety and performance requirements for pneumatic circuit devices.

---Part 9: Installation and Use. This section specifies the requirements for the installation and use of arc welding equipment.

---Part 10: Electromagnetic Compatibility (EMC) Requirements. The purpose is to specify the electromagnetic compatibility requirements for arc welding power supplies and auxiliary equipment.

---Part 11: Welding clamps. The purpose is to specify the safety and performance requirements for welding clamps, a welding accessory.

---Part 12: Welding Cable Couplers. The purpose is to specify the safety requirements and performance of welding cable couplers for welding accessories.

Require.

---Part 13: Welding Clamps. The purpose is to specify the safety and performance requirements for welding clamps, a welding accessory.

---Part 14: Calibration, Qualification, and Conformity Testing. The purpose is to specify the qualification requirements for arc welding and its external monitoring equipment, and the arc...