

ICS 25.160.30
CCS J 64



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

GB/T 15579.9-2026

Replacing GB/T 15579.9-2017

Arc welding equipment - Part 9: Installation and use

弧焊设备 第9部分：安装和使用

(English Translation)

Issued on: July 2, 2026

Implemented on: February 1, 2027

Issued by: State Administration for Market Regulation

Table of Contents

Foreword	
Introduction	
1 Scope	
2 Normative references	
3 Terms and Definitions	
4 Installation	
4.1 General Requirements	
4.2 Input Circuit	
4.3 Welding Circuit	
5.1 General Requirements	
5.2 Regional Assessment	
5.3 Methods to reduce emissions	
6 Electromagnetic Field (EMF)	
6.1 General Requirements	
6.2 Exposure Assessment	
7 Use	
7.1 General Requirements	
7.2 Connection between multiple welding power sources	
7.3 Inspection and maintenance of welding equipment	
7.4 Disconnection of welding power source and/or welding circuit	
7.5 Protection	
7.6 Operator Requirements	
7.7 Protective Measures	
7.8 Isolation of the welding circuit from the workpiece and grounding (when not in use)	
7.9 Voltage between welding clamps or welding torches (guns)	
7.10 Welding in environments with a high risk of electric shock	
7.11 Use of slings	
7.12 Welding at the elevated location	
8 Welding power supply powered by battery pack	
8.1 Safety Recommendations	
8.2 Transportation	
Appendix A (Informative) Hazards Related to Arc Welding	

- A.1 Overview
- A.2 Equipment Status and Maintenance
- A.3 Operation
- A.4 Training
- A.5 Arc Radiation
- A.6 Electromagnetic Fields
- A.7 Welding fumes
- A.8 Noise
- A.9 Fire and Explosion
- A.10 General Protective Clothing
- A.11 Restricted Space
- Appendix B (Informative) Voltage Drop in Welding Circuit
- References

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".

This document is Part 9 of GB/T 15579 "Arc Welding Equipment". GB/T 15579 has already published the following parts.

- Part 1: Welding Power Source;
- Part 2: Liquid Cooling System;
- 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 System for Welding and Plasma Cutting Systems;
- Part 9: Installation and Use;
- Part 10: Electromagnetic Compatibility (EMC) Requirements;
- Part 11: Welding clamps;
- Part 12: Welding cable coupling device;

--Part 13: Welding Clamps;

--Part 14: Calibration, Validation and Conformity Testing.

This document supersedes GB/T 15579.9-2017 "Arc Welding Equipment - Part 9: Installation and Use", and is consistent with GB/T 15579.9-2017.

In comparison, aside from structural adjustments and editorial changes, the main technical changes are as follows.

- a) The terms "industrial and professional use" and "auxiliary power output" have been removed (see 3.6 and 3.9 in the 2017 edition).
- b) The general installation requirements have been changed (see 4.1, see 4.1 in the 2017 version).
- d) The requirement to use welding clamps has been added (see 4.3.4);
- e) An additional requirement has been added that the external radio frequency suppression network be connected to the soldering circuit (see 4.3.5);
- f) An "exposure assessment" requirement has been added (see 6.2);
- g) The general requirements for use have been changed (see 7.1, 2017 edition of 7.1).
- h) The requirement of "welding power supply powered by battery pack" has been added (see Chapter 8).

This document is equivalent to IEC 60974-9:2018 "Arc welding equipment - Part 9: Installation and use".

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 Electric Welding Machines (SAC/TC 70).

Introduction

Arc welding power supplies and plasma cutting systems, etc.), 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 ministries.

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 the liquid cooling systems of auxiliary equipment such as welding torches.

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 for 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 non-professionals.

The design must meet the safety and performance requirements of the arc welding and cutting power supply and auxiliary equipment with limited load.

--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 of arc welding power sources and auxiliary equipment.

Require.

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

Yes, you can request it.

--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