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

GB/T 15579.14-2021

**Arc welding equipment - Part 14: Calibration, validation and
consistency testing**

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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 of Standardization Documents"

drafted:

This document is Part 14 of GB/T 15579 "Arc Welding Equipment": GB/T 15579 has released the following parts:

- Part 1: Welding power sources;
- Part 2: Liquid cooling systems;
- Part 3: Arc ignition and arc stabilization devices;
- Part 4: Periodic inspection and testing;
- Part 5: Wire feeding device;
- Part 6: Load limiting equipment;
- Part 7: Welding torches (guns);
- Part 8: Pneumatic devices for welding and plasma cutting systems;
- Part 9: Installation and use;
- Part 10: Electromagnetic compatibility (EMC) requirements;
- Part 11: Welding guns;
- Part 12: Welding cable coupling devices;
- Part 13: Welding clamps;
- Part 14: Calibration, validation and consistency tests:

This document is equivalent to IEC 60974-14:2018 "Arc Welding Equipment - Part 14:

Calibration, Validation and Conformance Test":

The Chinese documents that have a consistent correspondence with the international documents normatively cited in this document are as follows:

---GB/T 15579:1-2013 Arc Welding Equipment Part 1: Welding Power Source (IEC 60974-1:2005, IDT)

Please note that some content of this document may be patented: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

Arc welding equipment mainly includes power supply for arc welding and similar processes (such as arc welding) powered by grid or battery and driven by mechanical devices:

power supply 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 of arc welding equipment: It is planned to be divided into 14 parts:

composition:

--- Part 1: Welding power sources: The purpose is to specify the safety requirements and performance requirements of welding power sources:

--- Part 2: Liquid cooling systems: The purpose is to specify the safety requirements and structure of liquid cooling systems for auxiliary equipment torches (guns):

structure requirements:

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

--- Part 4: Periodic inspection and testing: The purpose is to specify the periodic inspection and test procedures of the welding power source and to ensure that after maintenance

electrical safety requirements:

--- Part 5: Wire feeder: The purpose is to specify safety requirements and performance requirements for wire feeders for welding accessories:

--- Part 6: Limiting load equipment: The purpose is to specify connection to a single-phase public low-voltage power supply system, designed for non-professionals

Safety requirements and performance requirements for arc welding and cutting power sources and auxiliary devices used with limited loads:

--- Part 7: Welding torches (guns): The purpose is to specify the safety requirements and structural requirements of welding accessories torches (guns):

--- Part 8: Pneumatic devices for welding and plasma cutting systems: The purpose is to specify the flammable gas or oxygen of auxiliary equipment

Safety requirements and performance requirements for pneumatic devices:

--- Part 9: Installation and use: The purpose is to specify 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 sources and auxiliary equipment:

--- Part 11: Welding tongs: The purpose is to specify the safety requirements and performance requirements of welding accessories welding tongs:

--- Part 12: Welding cable coupling device: The purpose is to specify the safety requirements and performance of welding cable couplings for welding accessories

Require:

--- Part 13: Welding clamps: The purpose is to specify safety requirements and performance requirements for welding accessories welding clamps:

--- Part 14: Calibration, validation and consistency tests: The purpose is to specify the qualification requirements and arc welding of arc welding and its external monitoring equipment:

The actual verification operation of welding equipment, etc:

Arc welding equipment part 14: calibration, validation and

Conformance test

1 Scope

This document specifies the qualification requirements for arc welding and its external monitoring equipment: This document also applies to the actual verification operation of arc welding equipment:

This document may be used for installation and at such other times or intervals as the user deems appropriate to ensure that the equipment can be

Other specifications that the user deems applicable:

This document does not apply to:

--- Plasma systems for cutting and gouging;

--- arc ignition and arc stabilization device;

---Arc welding equipment designed according to IEC 60974-6:

Note 1: Other components in the welding system, such as robots, rotating devices, gas circuit devices, etc., also have an impact on the welding results, and can be verified if necessary:

See ISO 17662:

Note 2: Periodic inspection and testing of arc welding equipment are described in IEC 60974-4:

This document is intended for users, service shops or manufacturers: it can:

--- stand-alone use;

--- used in conjunction with the manufacturer's instructions; or

--- As the basis for the manufacturer to develop an equivalence verification program for a specific device:

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, dated citations

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

this document:

IEC 60974-1:2017 Arc Welding Equipment Part 1: Welding Power Source
(Arcweldingequipment-Part 1:Welding
powersources)

3 Terms and Definitions

The following terms and definitions apply to this document:

ISO and IEC publish terminology databases for standardization at:

---IEC Electronic Encyclopedia: <http://www.electropedia.org/>

---ISO online browsing platform: <http://www.iso.org/obp>

3:1

display value displayedvalue

A value measured by an internal instrument and displayed on the device: