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

GB/T 15579.5-2023

Replacing GB/T 15579.5-2013

Arc welding equipment - Part 5: Wire feeders

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Table of Contents

Preface	
Introduction	
1 Scope	1
2 Normative reference documents	1
3 Terms and Definitions	1
4 Environmental conditions	2
5 Test	2
5.1 Test conditions	2
5.2 Measuring instruments	3

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 5 of GB/T 15579 "Arc Welding Equipment". GB/T 15579 has released the following parts.

- Part 1. Welding power source;
- Part 2. Liquid cooling system;
- Part 3. Arc starting and arc stabilizing devices;
- Part 4. Periodic inspection and testing;
- Part 5. Wire feeding device;
- Part 6. Load limiting equipment;
- Part 7. Welding torch (gun);
- Part 8. Gas circuit devices 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 consistency testing.

This document replaces GB/T 15579.5-2013 "Arc Welding Equipment Part 5.Wire Feeding Device" and is consistent with GB/T 15579.5-2013

In addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The scope of application of the standard deletes "This part does not apply to wire feeding devices for non-professionals in IEC 60974-6" (2013 version of Chapter 1);
- b) Delete terms and definitions such as extrusion area and welding wire (see Chapter 3 of the.2013 edition);
- c) Added requirements for pressure measuring instruments and modified accuracy requirements for electrical measuring instruments (see 5.2, 5.2 of the.2013 edition);
- d) Enclosure protection adds the use of IEC 60529 test procedures and conditions, and compliance test requirements for enclosure drainage (see 6.2.1);
- e) Protection against electric shock adds requirements such as the contact current of the welding circuit and the contact current under general conditions (see Chapter 6);
- f) Added non-routine operation requirements (see Chapter 10).

This document is equivalent to IEC 60974-5:2019 "Arc Welding Equipment Part 5.Wire Feeding Device".

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

Introduction

Arc welding equipment mainly includes power supplies powered by power grids or batteries, as well as mechanical devices driven by arc welding and similar processes (such as arc welding

Power supply and plasma cutting system, etc.), auxiliary equipment, welding accessories, etc.

GB/T 15579 "Arc Welding Equipment" stipulates the safety requirements, performance requirements and electromagnetic compatibility requirements of arc welding equipment, and consists of 14 parts

composition.

---Part 1.Welding power source. 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 the liquid cooling system of the auxiliary equipment welding torch (gun).
structural requirements.

---Part 3.Arc starting and arc stabilizing devices. The purpose is to specify the safety requirements for arc starting and arc stabilizing devices of auxiliary equipment.

---Part 4.Periodic inspection and testing. The purpose is to specify the periodic inspection and test procedures for welding power sources and to ensure that after maintenance electrical safety requirements.

---Part 5.Wire feeding device. The purpose is to specify the safety requirements and performance requirements for wire feed devices of welding accessories.

---Part 6.Load limiting equipment. The purpose is to provide for connection to a single-phase public low-voltage supply system and to be designed for use by non-professionals.

Safety requirements and performance requirements for arc welding and cutting power sources and auxiliary devices with limited loads intended for use.

---Part 7.Welding torch (gun). The purpose is to specify the safety requirements and structural requirements for welding accessories welding torches (guns).

---Part 8.Gas circuit devices for welding and plasma cutting systems. The purpose is to provide for auxiliary equipment flammable gas or oxygen

Safety requirements and performance requirements for gas circuit 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 pliers. The purpose is to specify the safety requirements and performance requirements for welding accessories and welding clamps.

---Part 12.Welding cable coupling devices. The purpose is to specify the safety requirements and performance of welding accessories and welding cable coupling devices
Require.

---Part 13.Welding clamps. The purpose is to specify the safety requirements and

performance requirements for welding accessories and welding clamps.

---Part 14. Calibration, validation and consistency testing. The purpose is to specify the validation requirements for arc welding and its external monitoring equipment and arc

Requirements such as actual verification operation of welding equipment.

Arc welding equipment part 5. wire feeding device

1 Scope

This document specifies the safety requirements and performance requirements for wire feed devices used in arc welding and similar processes for industrial and professional use.

This document applies to split-type (separate from the welding equipment), integrated (installed in a single enclosure or together with other welding equipment in

wire feed device or wire feed control device in a separate housing). The wire feed unit can be used with either a manual or mechanically guided welding torch.

This document does not apply to welding torches with wire spools in IEC 60974-7.

Note 1. Typical similar processes include arc cutting and spraying.

Note 2. This document does not include the electromagnetic compatibility (EMC) requirements specified in IEC 60974-10.

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.

Note. GB/T 2900.73-2008 Electrical Terminology Grounding and Electric Shock Protection (IEC 60050-195:1998, MOD)

Note. GB/T 4208-2017 Enclosure protection level (IP code) (IEC 60529:2013, IDT)
power sources)

Note 1. There is no technical difference between the quoted content of IEC 60974-1:2021 and the quoted content of IEC 60974-1:2017/AMD1:2019.

Note 2. GB/T 15579.1-2013 Arc welding equipment Part 1. Welding power source (IEC 60974-1:2005, IDT)