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

GB/T 14896.8-2025

Replacing GB/T 14896.8-2009

**Non-traditional machines - Terminology - Part 8: Electrical arc
machines**

特种加工机床 术语 第8部分：电弧加工机床

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Table of Contents

1.Scope	1
2 Normative References	1
3.Processing Method	1
4.Machine tool name	2
5.Machine Tool Parameters and Processes.....	2
5 Index	6

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 8 of GB/T 14896 "Terminology for Special Processing Machine Tools". GB/T 14896 has already published the following parts.

- 1.Basic Terminology;
- 2.Electrical Discharge Machining Machines;
- 3.Electrolytic Processing Machine Tools;
- 4.Ultrasonic Machining Machine Tools;
- 5.Multi-functional Machine Tools;
- 6.Other Special Processing Machine Tools;
- 7.Additive Manufacturing Machine Tools;
- 8.Arc Machining Machine Tools;

9.Laser Processing Machine Tools This document replaces GB/T 14896.8-2009 "Terminology for Special Machine Tools Part

8.Electro-Mechanical Processing Machine Tools", and is consistent with... Compared with GB/T 14896.8-2009, apart from structural adjustments and editorial changes, the main technical changes are as follows:

a) Change the processing method from "electro-melting explosion machining" to "electric arc machining" (see 3.1,

6.1 in the.2009 edition);

1 Scope

GB/T 14896.8-2025 is the Chinese national standard on non-traditional machines - terminology - part 8: electrical arc machines, in the field of manufacturing engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 31 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 25.080.99, CCS J59. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document defines the processing methods, names, parameters and processes of electric arc machining tools, as well as the terminology for their main components. This document applies to all types of arc machining machines (including equipment).

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 14896.1-2025 Terminology for Special Processing Machine Tools Part

3 Processing Method

3.1 In a specific medium, an electric arc discharge is generated between the workpiece and the tool electrode, causing the workpiece material to melt, vaporize, and be removed. method. [Source: GB/T 14896.1-2025, 3.7]

3.2 An arc machining method using a forming tool electrode.

3.3 electric arc milling Using rod-shaped or tubular electrodes, the workpiece is shaped point-by-point (surface-by-surface) in a manner similar to the relative motion between the milling cutter and the workpiece during mechanical milling. Arc machining method.

3.4 electric arc turning Arc machining using rod-shaped, tubular, or disc-shaped electrodes, following a relative motion pattern between the cutting tool and the workpiece similar to that in mechanical turning. method.

3.5 electric arc cutting An arc machining method that uses rod-shaped or wire electrodes to

cut the workpiece in a manner similar to the movement of the electrode wire in wire electrical discharge machining.

3.6 electric arc drilling An electric arc machining method that uses rod-shaped or tubular electrodes to drill holes in a workpiece in a manner similar to the movement of a drill bit during mechanical drilling.

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