



ANSI/NEMA/IEC 60974-11-2009 (R2020)

American National Standard for Arc Welding Equipment— Part 11: Electrode Holders



National Electrical Manufacturers Association
1300 North 17th Street, Suite 900 • Rosslyn, VA 22209
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*Arc Welding Equipment—
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Published by

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FOREWORD FOR U.S. ADOPTION

This American National Standard is an adoption of IEC 60974-11, edition 2, *Arc welding equipment – Part 11: Electrode holders*, and was developed and approved in accordance with procedures set forth by the American National Standards Institute. Any reference in this standard to an IEC 60974 part is understood to mean a reference to the equivalent ANSI/NEMA/IEC 60974 part, where it exists.

ANSI/NEMA/IEC 60974-11-2009 (R2020) is a reaffirmation of ANSI/NEMA/IEC 60974-11-2009. No substantive changes were made to the document during this reaffirmation.

This standard contains all the original text from IEC 60974-11, edition 2, in addition to a number of U.S. Differences to the IEC standard that were identified by Accredited Standards Committee W1, *Requirements for Apparatus Designed for Use in Arc Welding, Plasma Arc Cutting, and Allied Processes*. Each U.S. Difference is found both in a compilation of U.S. Differences following this foreword, and inserted in the appropriate place(s) in the standard relating to the difference. Each insertion is in red text and is marked by three lines on its left (two thin, one thick). Each difference is identified with the following format:

[Clause/Subclause Number]DV[Number of Difference for the Given Clause/Subclause]

Following this format, the example 17.1DV.3 signifies that it is the third U.S. Difference to subclause 17.1.

Suggestions for the improvement of this standard are welcome and should be submitted to the Secretariat of Accredited Standards Committee W1 as follows:

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This standard was processed and approved by the Accredited Standards Committee W1. Committee approval does not necessarily imply that all Committee members voted for its approval. At the time this standard was approved, Accredited Standards Committee W1 consisted of the following members:

Greg Corban, Chair
Mike Madsen, Vice-Chair
Khaled Masri, Secretary

Name			Voting Status	Interest Category
Andrew	Davis	American Welding Society	Alt. Voting	ANSI - GEN INTEREST
David	Werba	American Welding Society	Voting	ANSI - GEN INTEREST
David	Beneteau	CenterLine (Windsor) Limited	Voting	ANSI - GEN INTEREST
Jean-Pierre	Boivin	CSA Group - Certification	Voting	ANSI - USER
Ramana	Tangirala	CSA Group - Standards	Alt. Voting	ANSI - USER
Sam	Zaffino	CSA Group - Certification	Alt. Voting	ANSI - USER
Lorenzo	Tiracchia	CSA Group - Standards	Voting	ANSI - GEN INTEREST
Carlos	De Lima	ESAB Welding & Cutting Products	Voting	ANSI - PRODUCER
Gregory	Corban	Hypertherm Incorporated	Voting	ANSI - PRODUCER

Patrick	Salas	Hypertherm Incorporated	Alt. Voting	ANSI - PRODUCER
Tak Ming	Liu	Hypertherm Incorporated	Alt. Voting	ANSI - PRODUCER
Amanda	Dotten	Intertek	Alt. Voting	ANSI - USER
Peter	Sedor	Intertek	Voting	ANSI - USER
Samir	Farah	Lincoln Electric	Voting	ANSI - PRODUCER
Frank	Stupczy	Lincoln Electric	Alt. Voting	ANSI - PRODUCER
Terry	Christianson	Miller Electric Mfg. LLC An ITW	Alt. Voting	ANSI - PRODUCER
	-Plato	Welding Company		
Joe	Krueger	Miller Electric Mfg. LLC An ITW	Alt. Voting	ANSI - PRODUCER
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Michael	Madsen	Miller Electric Mfg. LLC An ITW	Voting	ANSI - PRODUCER
		Welding Company		
John	Freudenberg	Northeast Product Safety Society	Voting	ANSI - GEN INTEREST
Christopher	Doty	UL LLC	Voting	ANSI - USER

COMPILATION OF U.S. DIFFERENCES

NOTE This section is an integral part of American National Standard ANSI/NEMA/IEC 60974-11. See the section "Foreword for U.S. Adoption" for an explanation of the format used to identify U.S. Differences.

ForewordDV.1 Modify the foreword by adding the following:

The numbering system in this standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

GlobalDV.1 Throughout this document, replace the phrase "this part of IEC 60974" with "this part of ANSI/NEMA/IEC 60974"

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –

Part 11: Electrode holders

FOREWORD

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International Standard IEC 60974-11 has been prepared by IEC technical committee 26: Electric welding.

This second edition cancels and replaces the first edition published in 1992. This edition constitutes a technical revision.

This new edition aligns test conditions (environmental, rated current) with the other parts of the IEC 60974 series. The modification of EN 60974-11:1995 has been adopted.

This part of IEC 60974 is to be used in conjunction with IEC 60974-1.

The text of this standard is based on the following documents:

FDIS	Report on voting
26/283/FDIS	26/288/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

ForewordDV.1 Modify the foreword by adding the following:

The numbering system in this standard uses a space instead of a comma to indicate thousands and uses a comma instead of a period to indicate a decimal point. For example, 1 000 means 1,000 and 1,01 means 1.01.

ARC WELDING EQUIPMENT –

Part 11: Electrode holders

GlobalDV.1 Throughout this document, replace the phrase "this part of IEC 60974" with "this part of ANSI/NEMA/IEC 60974"

1 Scope

This part of IEC 60974 is applicable to electrode holders for manual metal arc welding with electrodes up to 10 mm in diameter.

It is not applicable to electrode holders for underwater welding.

This part of IEC 60974 specifies safety and performance requirements of electrode holders.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-151:2001, *International Electrotechnical Vocabulary (IEV) – Part 151: Electrical and magnetic devices*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60974-1, *Arc welding equipment – Part 1: Welding power sources*

3 Terms and definitions

For the purposes of this part of IEC 60974, the definitions contained in IEC 60050-151, IEC 60974-1, as well as the following apply.

3.1

electrode holder

tool for clamping, guiding and connecting a manual metal arc welding electrode to the welding circuit while insulating the operator from the welding circuit

3.2

head

part of the electrode holder having cavities or jaws or equivalent for insertion, orientation, clamping and electrical connection of an electrode

3.3

handle

part of the electrode holder designed to be held in the operator's hand