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FOREWORD FOR U.S. ADOPTION

This American National Standard is an adoption of IEC 60974-2, edition 2, *Arc welding equipment —Part 2: Liquid cooling systems*, and was developed and approved in accordance with procedures set forth by the American National Standards Institute. It is the intention that this American National Standard be a standalone document, replacing the use of IEC 60974-2 in the U.S. As such, any reference in this standard to an IEC 60974 part is understood to mean a reference to the equivalent ANSI/IEC 60974 part, where it exists.

This standard contains all the original text as-is from IEC 60974-2, 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:

[Clauses/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:

Greg Winchester, ASC W1 Secretary
c/o National Electrical Manufacturers Association
1300 North 17th Street, Suite 1752
Rosslyn, VA 22209
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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 published, Accredited Standards Committee W1 consisted of the following members:

John Freudenberg, Chairman
Wayne Hoffman, Vice Chairman
Greg Winchester, Secretary

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<td>CenterLine (Windsor) Limited</td>
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –

Part 2: Liquid cooling systems

FOREWORD

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International Standard IEC 60974-2 has been prepared by IEC technical committee 26: Electric welding.

This second edition cancels and replaces the first edition published in 2002 and constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

- changes induced by the publication of IEC 60974-1, edition 3;
- introduction of a set-up for torch simulation during leakage test;
- complementary requirement for attachment plug in 125 V supply network;
- introduction of new items in instructions;
- correction of density value for water/alcohol (50/50);
- improvement of rating plate example.
The text of this standard is based on the following documents:

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<td>26/366/RVD</td>
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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.

This standard shall be used in conjunction with IEC 60974-1.

The list of all parts of IEC 60974, under the general title *Arc welding equipment*, can be found on the IEC web site.

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.

**Foreword**

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 2: Liquid cooling systems

1 Scope

This part of IEC 60974 specifies safety and construction requirements for industrial and professional liquid cooling systems used in arc welding and allied processes to cool torches.

This part of IEC 60974 is applicable to stand-alone liquid cooling systems that are either connected to a separate welding power source or built into the welding power source enclosure.

This part of IEC 60974 is not applicable to refrigerated cooling systems.

NOTE 1 Typical allied processes are, for example, plasma arc cutting and arc spraying.

NOTE 2 This part of IEC 60974 does not include electromagnetic compatibility (EMC) requirements.