

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Arc welding equipment –
Part 13: Welding clamp**

**Matériel de soudage à l'arc –
Partie 13: Pince de retour de courant**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ARC WELDING EQUIPMENT –**Part 13: Welding clamp**

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International Standard IEC 60974-13 has been prepared by IEC technical committee 26: Electric welding

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

FDIS	Report on voting
26/442/FDIS	26/447/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.

A list of all parts of the IEC 60974 series can be found, under the general title *Arc welding equipment*, on the IEC website.

In this standard, the following print types are used:

- *conformity statements: in italic type.*

The committee has decided that the contents of this publication will remain unchanged until the stability 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- withdrawn,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.

ARC WELDING EQUIPMENT –

Part 13: Welding clamp

1 Scope

This part of IEC 60974 is applicable to clamps for arc welding processes, designed to make an electrical connection to the workpiece without using tools.

This part of IEC 60974 is not applicable to clamps for underwater welding and plasma cutting.

This part of IEC 60974 specifies safety and performance requirements of welding clamps.

This part of IEC 60974 does not specify requirements for welding cables.

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

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

3 Terms and definitions

For the purposes of this document, the terms and definitions given in the IEC 60050-151, the IEC 60974-1, as well as the following apply.

3.1

welding clamp

work clamp, US

return current clamp, UK

device connecting welding cable to workpiece

3.2

rated current

current assigned by the manufacturer that the welding clamp can accept at 60 % duty cycle without exceeding the permitted temperature rise

3.3

retaining means

mechanical arrangement that holds the welding clamp in position and prevents an unintentional withdrawal, when properly attached to the workpiece

4 Environmental conditions

The welding clamp shall be capable of operation when the following environmental conditions prevail: