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Resistance welding equipment — Electrode taper fits for spot welding equipment — Dimensions

Matériel de soudage par résistance — Emmanchements coniques d'électrodes pour machines à souder par points — Dimensions

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*, Subcommittee SC 6, *Resistance welding and allied mechanical joining*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 1089:1980), which has been technically revised.

The main changes are as follows:

— Clauses 1, 4, 5 and 6 have been updated;

— Clauses 2 and 3 have been added according to ISO drafting rules;

— former Figure 1 has been split into Figures 1 and 2 and updated;

— Figures 3 and 4 have been added;

— all tables have been rearranged and updated (see Tables 1, 2 and 4);

— Table 3 has been added;

— Annex A has been added for electrodes of RWMA type;

— a Bibliography has been added.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. Official interpretations of ISO/TC 44 documents, where they exist, are available from this page: https://committee.iso.org/sites/tc44/home/interpretation.html.

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Resistance welding equipment — Electrode taper fits for spot welding equipment — Dimensions

1 Scope

This document specifies the dimensions and tolerances of taper fits between the following:

— straight electrodes and electrode holders;

— electrode adapters connecting electrode caps and electrode holders;

— female electrode caps and electrode adapters;

— male electrode caps and electrode adapters.

NOTE Electrode holders and electrode caps utilizing locking tapers are addressed in ISO 20168.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 17677-1, *Resistance welding — Vocabulary — Part 1: Spot, projection and seam welding*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 17677-1 apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

4 Dimensions

The dimensions shall be in accordance with figures and tables as follows:

— for taper types A and B, Figure 1 and Tables 1 and 2;

— for taper Type C, Figure 2 and Table 3, with Figure 3 showing a detail view of l_2, l_3 and l_4;

— for taper Type D, Figure 4 and Table 4.

Taper dimension tolerances are given in Table 5.

Tapers can be checked using taper plug gauges and taper ring gauges in accordance with ISO 5822.

Annex A gives information on alternative types of electrode taper fits with 1:9.6 tapers.

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