

BUREAU OF INDIAN STANDARDS

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भारतीय मानक मसौदा

प्रतिरोधक स्पॉट वेल्डिंग

भाग 7 स्पॉट वेल्डिंग उपकरण के लिए इलेक्ट्रोड टेपर फिट्स — आयाम

[आई एस 4972 (भाग 7) का दूसरा पुनरीक्षण]

Draft Indian Standard

RESISTANCE SPOT WELDING

PART 7 ELECTRODE TAPER FITS FOR SPOT WELDING EQUIPMENT — DIMENSIONS

[*Second Revision of IS 4972 (Part 7)*]

ICS 25.160.30

Welding General and its Applications
Sectional Committee, MTD 11

Last date of comments
06 January 2024

NATIONAL FOREWORD

This draft standard is identical to ISO 1089 : 2023 'Resistance welding equipment — Electrode taper fits for spot welding equipment — Dimensions' issued by the International Organization for Standardization (ISO), and subject to its finalization, is to be adopted by the Bureau of Indian Standards on the recommendation of the Welding General and its Applications Sectional Committee and approval of the Metallurgical Engineering Engineering Division Council.

This standard was originally published in 1968 and subsequently revised in 2022. First revision of this standard was undertaken in 2022 to bring it in line with International Practices by splitting in 8 parts as the requirements of IS 4972 : 1968 were covered in multiple ISO standards and this part was aligned with ISO 1089 : 1980. This revision has been undertaken to align it with the latest version of ISO 1089 : 2023 under dual numbering system to harmonize it with the latest developments that have taken place at international level.

The main changes as compared to the previous version are as follows:

- a) Clauses 1, 4, 5 and 6 have been updated;
- b) Clauses 2 and 3 have been added according to ISO drafting rules;
- c) Former Figure 1 has been split into Figures 1 and 2 and updated;
- d) Figures 3 and 4 have been added;
- e) All tables have been rearranged and updated (see Tables 1, 2 and 4);
- f) Table 3 has been added;
- g) Annex A has been added for electrodes of RWMA type; and
- h) A Bibliography has been added.

This Indian Standard is published in eight parts. Other parts in this series are:

Part 1	Electrode holders —Taper fixing 1:10
Part 2	Electrode holders — Morse taper fixing
Part 3	Electrode holders — Parallel shank fixing for end thrust
Part 4	Electrode adaptors, male taper 1:10 — Conical fixing, taper 1:10
Part 5	Electrode adaptors, male taper 1:10 — Parallel shank fixing for end-thrust electrodes
Part 6	Straight resistance spot welding electrodes
Part 8	Materials for electrodes and ancillary equipment

The text of ISO standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical with those used in Indian Standard. Attention is especially drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, it should be read as 'Indian Standard'; and
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

The Committee responsible for the preparation of this standard has reviewed the provisions of following International Standards referred in these adopted standards and decided their acceptability for use in conjunction with this standard.

<i>International Standard</i>	<i>Title</i>
ISO 17677-1	Resistance welding — Vocabulary — Part 1: Spot, projection and seam welding

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (*second revision*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

The scope of the standard is as follows:

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.

The complete document/text of ISO 1089 : 2023 'Resistance welding equipment — Electrode taper fits for spot welding equipment — Dimensions' may be made available, on request to:

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