
International Standard



5184

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Straight resistance spot welding electrodes

Pointes d'électrodes droites pour soudage par points par résistance

First edition — 1979-07-15

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO 5184:1979](https://standards.iteh.ai/catalog/standards/sist/8de2ac9e-1cc8-481f-8b11-3095c3ee6d8a/iso-5184-1979)

<https://standards.iteh.ai/catalog/standards/sist/8de2ac9e-1cc8-481f-8b11-3095c3ee6d8a/iso-5184-1979>



UDC 621.791.037

Ref. No. ISO 5184-1979 (E)

Descriptors : welding, resistance welding, spot welding, welding electrodes, resistance welding electrodes, dimensions, dimensional tolerances, designations, marking.

Price based on 2 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5184 was developed by Technical Committee ISO/TC 44, *Welding*, and was circulated to the member bodies in February 1978.

It has been approved by the member bodies of the following countries :

Belgium
Bulgaria
Canada
Czechoslovakia
Denmark
Finland
France
Germany, F. R.

India
Ireland
Italy
Japan
Mexico
Netherlands
New Zealand
Norway

ISO 5184:1979

Poland
Romania
South Africa, Rep. of
Spain
Turkey
United Kingdom
USSR

The member body of the following country expressed disapproval of the document on technical grounds :

Sweden

This International Standard cancels and replaces ISO Recommendations R 670-1968 and R 1045-1969, of which it constitutes a technical revision.

Straight resistance spot welding electrodes

1 Scope and field of application

This International Standard lays down the dimensions and tolerances of straight resistance spot welding electrodes.

It applies only to straight spot welding electrodes, where the electrode force F_{\max} given for diameter d_1 in the table is not exceeded and where the centre lines of the electrodes are perpendicular to the workpiece.

2 References

ISO 1089, *Electrode taper fits for spot welding equipment — Dimensions.*

ISO 5182, *Materials for resistance welding electrodes and ancillary equipment.*

3 Dimensions

See the drawings and table on page 2.

4 Designation

4.1 Example of designation of a straight spot welding electrode type F, with spanner flats with extended length (L), $d_1 = 16$ mm, a projecting length $l_5 = 25$ mm and material type A 2/2 :

Straight spot welding electrode
ISO 5184 FL 16 × 25 – A 2/2

4.2 Example of designation of a straight spot welding electrode type A, without spanner flats, $d_1 = 16$ mm, a projecting length $l_5 = 25$ mm and material type A 2/2 :

Straight spot welding electrode
ISO 5184 A 16 × 25 – A 2/2

4.3 Example of designation of a straight spot welding electrode type C, with spanner flats with short length (S), $d_1 = 16$ mm, a projecting length $l_5 = 25$ mm and material type A 2/2 :

Straight spot welding electrode
ISO 5184 CS 16 × 25 – A 2/2

5 Material

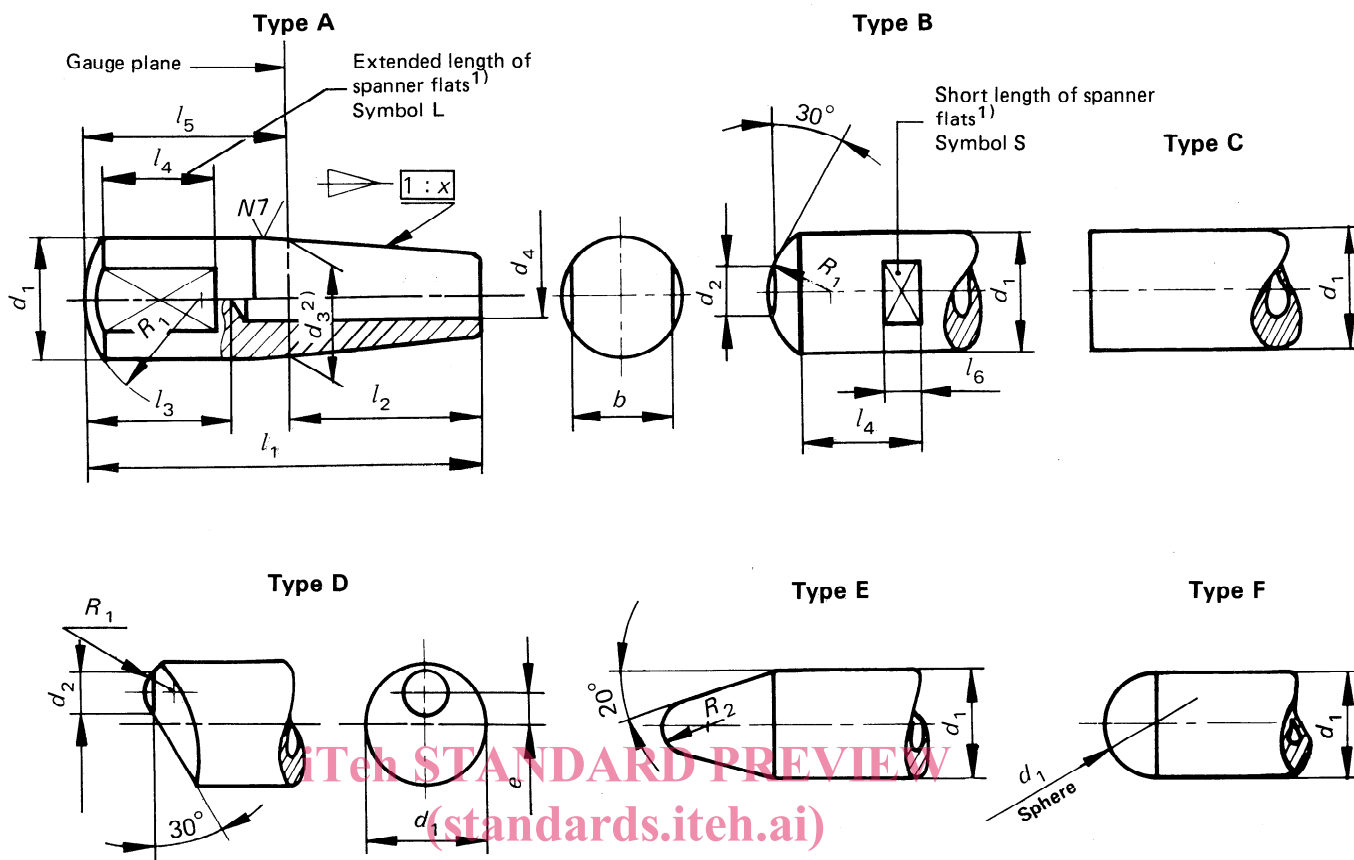
See ISO 5182.

6 Marking

Straight spot welding electrodes complying with this International Standard shall be marked with the designation laid down in clause 4 but excluding words and the reference number of this International Standard; for example :

FL 16 × 25 – A 2/2

When space limitations make it impracticable to use the full marking, then the material marking only shall be used.



ISO 5184:1979
<https://standards.iteh.ai/catalog/standards/sist/8de2ac9e-1cc8-481f-8b11-3095c3ee6d8a/iso-5184-1979>

Table – Dimensions

Dimensions in millimetres

d_1 h11	d_2	d_3	d_4 + 0,5 0	Taper 1 : x	e	b two flats	l_2 $\pm 0,5$	l_3 max.	l_4	l_6	R_1	R_2	$l_1 \pm 0,5$								Elec- trode force ³⁾ F_{max} kN		
													For $l_5^{3)} =$										
													16	20	25	31,5	40	50	63	80			
10	4	9,8	5,5	1 : 10	2	8	13	14	13	7	25	4	29	33	38	45	53	63	—	—	2,5		
13	5	12,7	7,5		3	11	16	15	14	7	32	5	32	36	41	48	56	66	79	—	—	4	
16	6	15,5	8,5		4	13	20	16	15	8	40	6	—	40	45	52	60	70	83	100	—	—	6,3
20	8	19	10,5		5	17	25	17	16	8	50	8	—	—	50	57	65	75	88	105	—	—	10
25	10	24,5	13,5		6,5	21	31,5	18	17	9	63	10	—	—	56,5	63,5	71,5	81,5	94,5	111,5	—	—	16
32	12,5	31	14	1 : 5	8,5	24	40	20	15	10	80	12,5	—	—	—	72	80	90	103	120	—	—	25
40	16	39	16		11	32	50	25	16	10	100	16	—	—	—	—	90	100	113	130	—	—	40

1) Spanner flats are optional; short or extended length of spanner flats may be selected.

2) d_3 is the cone diameter at the gauge plane.

3) For information only.