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ISO
8430-1

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Resistance spot welding — Electrode holders —

Part 1 :
Taper fixing 1 : 10

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Soudage par points par résistance — Porte-électrodes —

Partie 1 : Cône de fixation 1 : 10

ISO 8430-1:1988

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8430-1 was prepared by Technical Committee ISO/TC 44, *Welding and allied processes*.

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ISO 8430 consists of the following parts, under the general title *Resistance spot welding — Electrode holders*:

- *Part 1: Taper fixing 1 : 10*
- *Part 2: Morse taper fixing*
- *Part 3: Parallel shank fixing for end thrust*

Resistance spot welding — Electrode holders —

Part 1 : Taper fixing 1 : 10

1 Scope

This part of ISO 8430 specifies the dimensions and tolerances of resistance spot welding electrode holders (type A) without offset and with the facility for cable clamping, and where a male taper 1 : 10 is used to fix the holder directly to the welding cylinder in multiple spot welding equipment.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 8430. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 8430 are encouraged to investigate the possibility of applying the most recent editions of the standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 1642 : 1987, *Plastics — Industrial laminated sheets based on thermosetting resins — Specification.*

ISO 5182 : 1978, *Materials for resistance welding electrodes and ancillary equipment.*

ISO 5183-1 : 1988, *Resistance spot welding — Electrode adaptors, male taper 1:10 — Part 1: Conical fixing, taper 1:10.*

ISO 5821 : 1979, *Resistance spot welding electrode caps.*

ISO 5822 : 1982, *Spot welding equipment — Taper plug gauges and taper ring gauges.*

ISO 5828 : 1983, *Resistance welding equipment — Secondary connecting cables with terminals connected to water-cooled lugs — Dimensions and characteristics.*

ISO 7285 : — ¹⁾, *Pneumatic cylinders for mechanized multiple spot welding.*

ISO 9313 : 1988, *Resistance spot welding equipment — Cooling tubes.*

3 Dimensions

The dimensions shall be those given in figure 1 and table 1.

1) To be published.

4 Designation

The designations of electrode holders which comply with this part of ISO 8430 shall comprise the following information in the order given :

- the description block (i.e. "spot welding electrode holder");
- a reference to this part of ISO 8430;
- the type of electrode holder (type A);
- the reference diameter, in millimetres;
- the total length, l_4 , in millimetres;
- the material of which the electrode adaptor is made, in accordance with ISO 5182.

Example:

A type A (taper fixing) spot welding electrode holder, of reference diameter 16 mm, total length $l_4 = 103$ mm and material type A 2/1, shall be designated as follows:

Spot welding electrode holder
ISO 8430-1-A-16 × 103-A 2/1

5 Materials

The material of which the electrode holder is made shall be in accordance with ISO 5182, preferably group A, type 2.

The insulation shall be made of the following material: fabric base laminate ISO 1642-PFCC2.

6 Delivery conditions

The fixing shall be protected against damage, e.g. by a coating of synthetic resin.

7 Marking

Electrode holders complying with this part of ISO 8430 shall be marked with the designation laid down in clause 4, but excluding the description block and the reference number of this part of ISO 8430, for example:

A-16 × 103-A 2/1

Dimensions in millimetres,
surface roughness values in micrometres

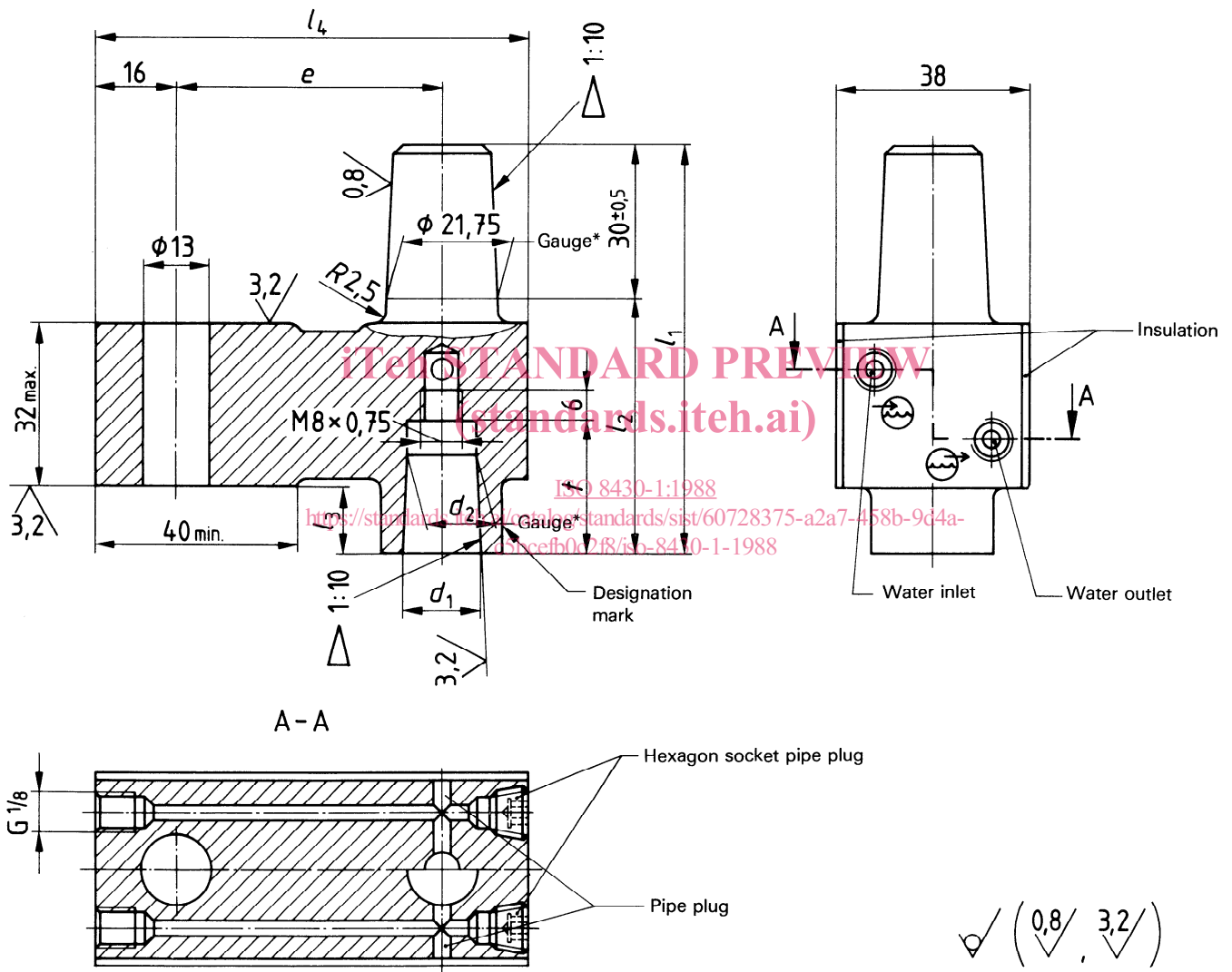


Figure 1 – Dimensions

* For the taper gauge, see ISO 5822.

Table 1 – Dimensions

Dimensions in millimetres

Reference diameter ¹⁾	d_1	d_2	e	l_1	l_2	l_3	l_4	t	Total length of cooling tube ²⁾
13	12,7	11,1	52	80	50	13	85	26	$l_5^{3)}$ + 15
16	15,5	13,5	52	80	50	13	85	26	$l_5^{3)}$ + 16
			70				103		
20	19	16,5	70	90	60	23	103	36	$l_5^{3)}$ + 26
			80				113		

1) The reference diameter corresponds to the electrode and electrode adaptor diameters.

2) See ISO 9313.

3) See ISO 5183-1.

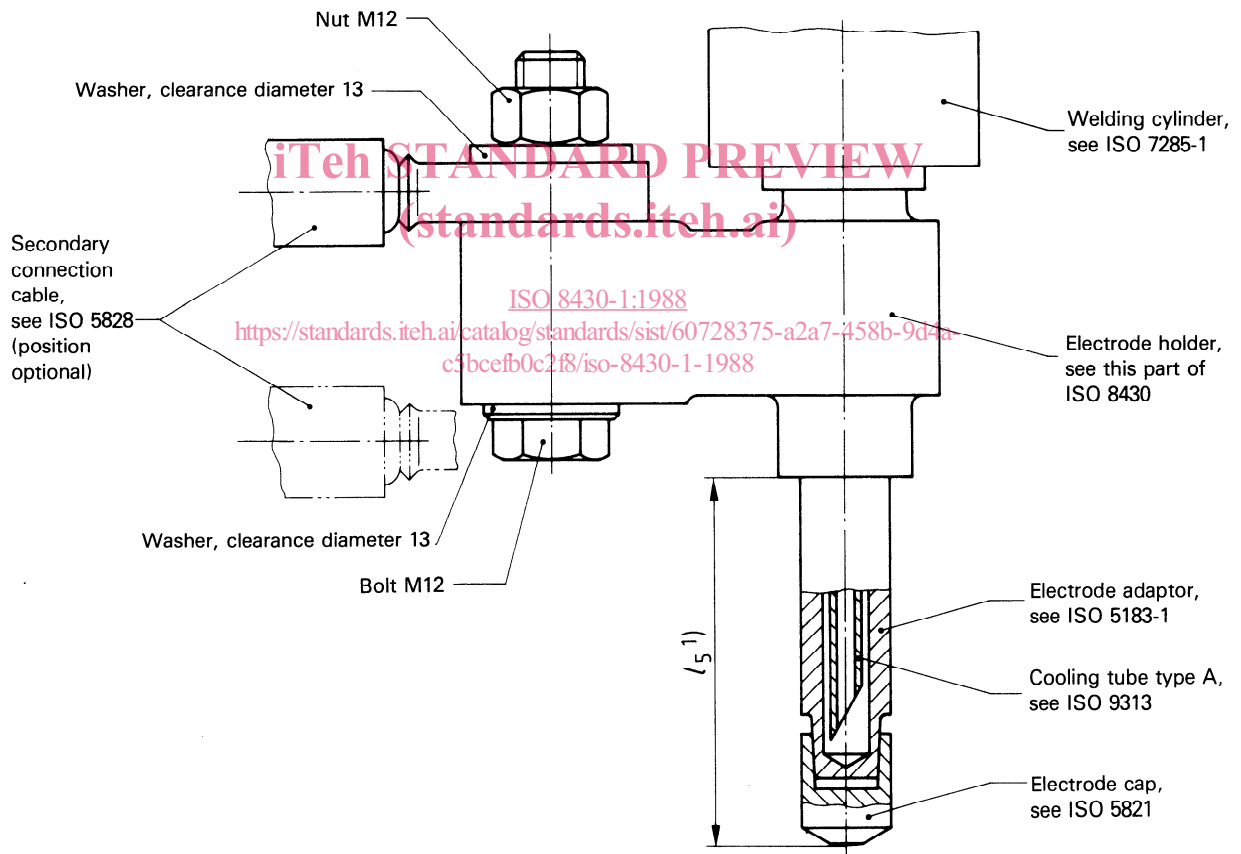


Figure 2 – Example of assembly

1) See ISO 5183-1.

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