

# INTERNATIONAL STANDARD

**ISO**  
**9956-2**

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**AMENDMENT 1**  
1998-11-01

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## **Specification and approval of welding procedures for metallic materials —**

### **Part 2:**

Welding procedure specification for arc  
welding

### **AMENDMENT 1**

*Descriptif et qualification d'un mode opératoire de soudage pour  
les matériaux métalliques —*

*Partie 2: Descriptif d'un mode opératoire de soudage pour le soudage à  
l'arc*

*AMENDEMENT 1*



Reference number  
ISO 9956-2:1995/Amd.1:1998(E)

## 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Amendment 1 to International Standard ISO 9956-2:1995 was prepared by ISO Technical Committee ISO/TC 44 *Welding and allied processes*, Subcommittee SC 10 *Unification of requirements in the field of welding*. It is based on – and equivalent to – EN 288-2:1992/A 1:1997.

This amendment was prepared with the aim of not changing the content technically, but of clarifying the existing standard by modifications brought about by experience gathered during application.

It is intended and under discussion to revise ISO 9956-2:1995 technically, applying the parallel procedure according to the Vienna agreement under leadership of CEN/TC 121/SC 1. After the technical revision, the number of this International Standard will be changed to ISO 15609-1, and EN ISO 15609-1.

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# Specification and approval of welding procedures for metallic materials —

## Part 2:

### Welding procedure specification for arc welding

#### AMENDMENT 1

*Page 1, clause 2*

Delete the text of clause 2 and replace by the following:

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4063:1998, *Welding and allied processes — Nomenclature of processes and reference numbers*.

ISO 6848:1984, *Tungsten electrodes for inert gas shielded arc welding, and for plasma cutting and welding — Codification*.

ISO 6947:1990, *Welds — Working positions — Definitions of angles of slope and rotation*.

ISO 9956-1:1995, *Specification and approval of welding procedures for metallic materials — Part 1: General rules for fusion welding*.

ISO 14175:1997, *Welding consumables — Shielding gases for arc welding and cutting*.

*Page 2, subclause 4.4.8*

Amend the title to "Welding consumable, designation".

Delete 4.4.8 and replace by the following :

— designation, manufacturer and trade name.

*Page 2, subclause 4.4.9*

Amend the title to "Welding consumable, dimensions".

Page 3, subclause 4.4.13

Delete 4.4.13 and replace by the following :

- the nominal temperature applied at the start of the welding process;
- if pre-heating is not required, the lowest work piece temperature immediately prior to welding.

Add a new sub-clause :

#### 4.4.16 Shielding gas

- designation in accordance with ISO 14175, manufacturer and trade name.

Page 3, subclause 4.5

Delete 4.5 and replace by the following :

#### 4.5.1 Process group 11 (metal-arc welding without gas protection)

- for process 111 the run-out length of electrode consumed.

#### 4.5.2 Process group 12 (submerged arc welding)

- for multiple electrode systems the number and configuration of wire electrodes and electrical connections;
- distance contact tube/work piece: the distance from contact tip nozzle to the surface of the workpiece for mechanized welding;
- flux: designation, manufacturer and trade name;
- additional filler metal.

#### 4.5.3 Process group 13 (gas-shielded metal arc welding)

- gas flow rate and nozzle diameter;
- number of wire electrodes;
- additional filler metal;
- distance contact tube/work piece: the distance from contact tip nozzle to the surface of the workpiece for mechanized welding.

#### 4.5.4 Process group 14 (gas-shielded welding with non-consumable electrode)

- for tungsten electrodes, the diameter and designation in accordance with ISO 6848;
- gas flow rate and nozzle diameter.

#### 4.5.5 Process group 15 (plasma arc welding)

- plasma gas parameters, e.g. type, nozzle diameter, flow rate;
- shielding gas flow rate and nozzle diameter;
- type of torch;
- plasma current;
- distance contact tube/work piece.