

PD ISO/TR 25901-3:2016



BSI Standards Publication

Welding and allied processes — Vocabulary

Part 3: Welding processes

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National foreword

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The UK participation in its preparation was entrusted to Technical Committee WEE/1, Briefing committee for welding.

A list of organizations represented on this committee can be obtained on request to its secretary.

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ISBN 978 0 580 86433 9

ICS 01.040.25; 25.160.10

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This Published Document was published under the authority of the Standards Policy and Strategy Committee on 31 March 2016.

Amendments issued since publication

Date	Text affected
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TECHNICAL
REPORT

ISO/TR
25901-3

First edition
2016-03-15

**Welding and allied processes —
Vocabulary —**

**Part 3:
Welding processes**

Soudage et techniques connexes — Vocabulaire —

Partie 3: Procédés de soudage



Reference number
ISO/TR 25901-3:2016(E)

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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.

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 documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/TC 44, *Welding and allied processes*, Subcommittee SC 7, *Representation and terms*, in collaboration with Commission VI, *Terminology, of the International Institute of Welding (IIW)*.

This first edition of ISO/TR 25901-3, together with the other parts of ISO/TR 25901, cancels and replaces ISO 857-1:1998 and ISO/TR 25901:2007 of which it constitutes a revision.

ISO/TR 25901 consists of the following parts under the general title *Welding and allied processes — Vocabulary*:

- *Part 1: General terms [Technical Report]*
- *Part 3: Welding processes [Technical Report]*
- *Part 4: Arc welding [Technical Report]*

The following parts are under preparation:

- *Part 2: Safety and health [Technical Report]*

Friction welding is to form the subject of a future part 5.

Requests for official interpretations of any aspect of this International Standard should be directed to the Secretariat of ISO/TC 44/SC 7 via your national standards body. A complete listing of these bodies can be found at www.iso.org.

Welding and allied processes — Vocabulary —

Part 3: Welding processes

1 Scope

This part of ISO/TR 25901 contains terms and definitions for welding processes, classified in accordance with their physical characteristics and to the relevant energy carrier.

It does not contain terms and definitions related to specific processes or particular aspects of welding and allied processes that are covered in other parts of this Technical Report (see Foreword) or in other ISO standards.

In the main body of this part of ISO/TR 25901, terms are arranged in a systematic order. [Annex A](#) provides an index in which all terms are listed alphabetically with reference to the appropriate subclause. In addition, it provides French translations, covering two of the three official ISO languages (English, French and Russian). German translations are also provided, these are published under the responsibility of the member body for Germany (DIN) and are given for information only.

NOTE 1 Only the terms given in the official languages (English, French and Russian) are to be considered as ISO terms and definitions.

NOTE 2 All these terms and definitions are also available on the ISO Online Browsing Platform (OBP): <https://www.iso.org/obp/ui/>

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1 Basic terms and definitions

2.1.1

metal welding

operation which unifies metal(s) by means of heat or pressure, or both, in such a way that there is continuity in the nature of the metal(s) which has (have) been joined

Note 1 to entry: Filler metal, the melting temperature of which is of the same order as that of the parent metal(s), can be used and the result of welding is the weld.

Note 2 to entry: This definition also includes surfacing.

2.1.2

welding with pressure

welding in which sufficient external force is applied to cause a greater or lesser degree of plastic deformation of both the faying surfaces, generally without the addition of filler metal

Note 1 to entry: Usually, but not necessarily, the faying surfaces are heated in order to permit or to facilitate unifying.

2.1.3

fusion welding

welding without application of external force in which the faying surface(s) has (have) to be molten

Note 1 to entry: Usually, but not necessarily, molten filler metal is added.