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STANDARD

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**Welding and allied
processes — Vocabulary —
Part 1:
General terms**

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Mauritius Standards Bureau

Moka

National Foreword

This Mauritian Standard is identical with the International Standard **ISO/TR 25901-1:2016, *Welding and allied processes — Vocabulary — Part 1: General terms***. It was adopted by the Mauritius Standards Bureau on the recommendation of the **Mechanical Engineering Standards Committee** and approved by the **Standards Council** on **05 December 2019**. It was notified in the **Government Gazette** on **24 January 2020***.

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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—1, 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 1: General terms

1 Scope

This part of ISO/TR 25901 contains general terms and definitions applicable to welding and allied processes.

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 Terms related to welding and allied processes

2.1.1 General terms

2.1.1.1

welding

joining process in which two or more parts are united producing a continuity in the nature of the workpiece material(s) by means of heat or pressure or both, and with or without the use of *filler material* ([2.1.10.4](#))

Note 1 to entry: Welding processes may be used also for *surfacing* ([2.1.9.1](#)) and remelting.

2.1.1.2

fusion welding

welding ([2.1.1.1](#)) involving localized melting without the application of external force in which the fusion surface(s) has (have) to be melted with or without addition of *filler material* ([2.1.10.4](#))

2.1.1.3

weld

result of *welding* ([2.1.1.1](#))

Note 1 to entry: The weld includes the *weld metal* ([2.1.2.1](#)) and the *heat-affected zone* ([2.1.2.2](#)).

2.1.1.4

weldment

assembly incorporating one or more *welded joint(s)* ([2.1.4.2](#))

2.1.1.5

parent material

base material

material to be joined, or surfaced, by *welding* ([2.1.1.1](#)), braze welding or brazing

2.1.1.6

parent material thickness

material thickness

nominal thickness ([2.1.7.7](#)) of the materials to be welded

2.1.1.7

parent metal

base metal

metallic *parent material* ([2.1.1.5](#))

2.1.1.8

manual welding

welding ([2.1.1.1](#)) in which the *electrode* ([2.3.8](#)) holder, gun, *torch* ([2.3.9](#)) or blowpipe is manipulated by hand

2.1.1.9

partly mechanized welding

semiautomatic welding

manual welding ([2.1.1.8](#)) where wire feed is mechanized

2.1.1.10

mechanized welding

fully mechanized welding

welding ([2.1.1.1](#)) where the required *welding parameters* ([2.4.1](#)) are maintained by mechanical or electronic means

Note 1 to entry: Manual adjustment of welding parameters by the *welding operator* ([2.5.25](#)) during welding is possible.

2.1.1.11

automatic welding

welding ([2.1.1.1](#)) in which all operations are performed without *welding operator* ([2.5.25](#)) intervention during the process

Note 1 to entry: Manual adjustment of *welding parameters* ([2.4.1](#)) by the welding operator during welding is not possible.

2.1.1.12

robotic welding

welding ([2.1.1.1](#)) that is performed and controlled by robotic equipment

2.1.1.13

gouging

thermal cutting process variation that forms a groove by melting or burning

2.1.1.14

arc gouging

gouging ([2.1.1.13](#)) using an arc cutting process variation

2.1.1.15

air-arc gouging

gouging ([2.1.1.13](#)) using a carbon *electrode* ([2.3.8](#)) and compressed air