
British Standard

Arc welding power sources, equipment and accessories

Part 7. Specification for safety requirements for installation and use

Sources d'alimentation, équipement et accessoires pour le soudage électrique à l'arc
Partie 7. Exigences de sécurité pour l'installation et l'emploi

Stromquellen, Schweißeinrichtungen und Zubehör für das Lichtbogenschweißen
Teil 7. Sicherheitstechnische Anforderungen hinsichtlich Aufbau und Verwendung

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Foreword

This Part of BS 638 has been prepared under the direction of the Welding Standards Committee. It is a revision and metrication of the 1966 edition of BS 638 and takes into consideration the international standards which have been published in the interim. It was considered that any future alignment with internationally agreed standards would be facilitated if BS 638 were published in several Parts, which in any case should also make for easier use and comprehension. Consequently, BS 638 has been divided into the following Parts:

- Part 1 Specification for oil cooled power sources for manual, semi-automatic and automatic metal-arc welding and for TIG welding
- Part 2 Specification for air cooled power sources for manual metal-arc welding with covered electrodes and for TIG welding
- Part 3 Specification for air cooled power sources for semi-automatic and automatic metal-arc welding
- Part 4 Specification for welding cables
- *Part 5 Specification for accessories
- Part 6 Specification for safety requirements for construction
- Part 7 Specification for safety requirements for installation and use
- *Part 8 Specification for electrode holders and handheld torches and guns for MIG, MAG and TIG welding

This Part of BS 638 is not a comprehensive safety document but aims at providing basic safety requirements. It is the duty of the user of arc welding power sources, equipment and accessories to inform himself/herself of the relevant legal requirements. Guidance is given in appendix A on some of the more important legislative documents, together with a list of publications considered useful, and specific references are given in relevant clauses.

NOTE. Any user in doubt on the relevant legal requirements should consult the Health and Safety Executive (Factory Inspectorate).

The main requirements, as opposed to recommendations, in this Part are derived from the United Kingdom's increased involvement in European standardization and the consequent commitment in implementing technical requirements emanating from this source. This Part implements the requirements laid down in CENELEC Harmonization Documents 407 (1980) and 427 (1981). Additional requirements have been given in cases where the harmonization document does not cover all circumstances likely to arise.

The assistance of the Welding Manufacturers' Association (Arc Welding Plant Section) and the Health and Safety Executive in the drafting of this Part is acknowledged.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

* In course of preparation. In the meantime refer to the relevant requirements in BS 638 : 1966.



Amendment No. 1
published and effective from 29 March 1985
to BS 638 : Part 7 : 1984

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Revised text

AMD 4848
March 1985

Clause 4.2 Earthing of the workpiece

In paragraph 1, delete the final sentence and substitute the following.

'No deliberate connection shall be made from the workpiece
or welding circuit to the earth conductor of the incoming
electric supply mains at the power source or its associated
local switchgear.'

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Amendment No. 2
published and effective from 30 June 1989
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Arc welding power sources, equipment and accessories

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Correction

AMD 6177
June 1989

Clause 4.2 Earthing of the workpiece (as amended by Amendment No. 1)

In paragraph 1, delete the final sentence and substitute the following:

‘No deliberate connection shall be made from the workpiece or welding circuit to the earth conductor of the incoming electric supply mains at the welding power source or its associated local switchgear.’



Amendment No. 3
published and effective from 28 March 1991
to BS 638 : Part 7 : 1984

Arc welding power sources, equipment and accessories

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Revised text

AMD 6661
March 1991

Clause 5.7.3 Protective clothing

Delete the existing text with the exception of the note and substitute the following.

'These accessories shall comply with BS 2653 and BS 1651 except that the use of asbestos is not permitted.'

AMD 6661
March 1991

Clause B.4 Welding fume

Delete the title and substitute the following:

'B.4 Welding fume, vapours and gases.'

Insert the following between the second and final paragraphs of the existing text.

'In confined space welding areas, as encountered for example in ship construction and the fabrication of pressure vessels, additional care is required to ensure that a build-up of gases, including those leaked from cylinders, does not occur.

The use of portable safety air monitors is recommended to warn personnel immediately of a potentially dangerous accumulation of gases and of changes in oxygen content above and below safety levels in the confined spaces.'

