

Welding coordination — Tasks and responsibilities

The European Standard EN 719:1994 has the status of a British Standard

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Cooperating organizations

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United Kingdom British Standards Institution

This British Standard, having been prepared under the direction of the Welding Standards Policy Committee, was published under the authority of the Standards Board and comes into effect on 15 October 1994

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National foreword

This British Standard has been prepared under the direction of the Welding Standards Policy Committee and is the English language version of EN 719:1994 Welding coordination — Tasks and responsibilities, published by the European Committee for Standardization (CEN).

EN 719 was produced as the result of international discussion in which the UK took an active part.

There has previously been no equivalent British Standard which identifies the quality related responsibilities and tasks included in the coordination of welding related activities.

It is assumed that the execution of the provisions of this document is entrusted to suitably qualified and experienced persons.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

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

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM

EN 719

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Descriptors: Welding, coordination, quality, qualification, personnel

English version

Welding coordination — Tasks and responsibilities

Coordination en soudage — Taches et responsabilités

Schweißaufsicht — Aufgaben und Verantwortung

This European Standard was approved by CEN on 1994-06-06. CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

European Committee for Standardization Comité Européen de Normalisation Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

Foreword

This European Standard was prepared by the Technical Committee CEN/TC 121, Welding, of which the secretariat is held by DS.

CEN/TC 121 has decided to submit this draft to the formal vote by its resolution 165/1993. The result was positive.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 1994, and conflicting national standards shall be withdrawn at the latest by December 1994.

According to the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

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0 Introduction

Welding is a special process which requires the coordination of welding operations in order to establish confidence in welding fabrication and reliable performance in service. The tasks and responsibilities of personnel involved in welding related activities, e.g. planning, executing, supervising and inspection, should be clearly defined.

1 Scope

This standard identifies the quality related responsibilities and tasks included in the coordination of welding related activities.

In any manufacturing organization welding coordination may be undertaken by one or a number of persons.

Welding coordination requirements can be specified by a manufacturer, contract or an application standard.

2 Definitions

For the purpose of this standard the following definitions apply:

2.1

manufacturing organization

manufacturing organization means welding workshops or sites under the same technical and quality management

2.2

welding coordination personnel

personnel who have responsibilities in the manufacturing operations for welding and welding related activities whose competence and knowledge has been demonstrated by e.g. training, education and/or relevant manufacturing experience welding coordinator is used as a term for a person

welding coordinator is used as a term for a person carrying out one or more coordination tasks

2.3

welding inspection

examining, testing and measuring of welding related matters

3 Tasks and responsibilities

3.1 Quality related activities

Table 1 shall be used as a guide to allocate quality related tasks and responsibilities to welding coordination personnel. It may be supplemented for special applications. Not all the items will necessarily apply to all manufacturing organizations or quality system requirements and a selection should be made as appropriate, e.g. where there is no destructive testing or non-destructive testing, No. 1.8.2 of Table 1 does not apply.

3.2 Specification of tasks and responsibilities

Each single activity in Table 1 may be associated with a number of tasks and responsibilities such as:

- specification or preparation;
- coordination;
- control;
- inspection, check or witnessing.

Where welding coordination is carried out by a number of persons, the tasks and responsibilities shah be allocated for each person.

The manufacturer shall nominate at least one authorized welding coordinator.

Welding coordination is considered to be the resonsibility of the manufacturing organization.

For some work activities the coordination tasks and resonsibilities may be carried out by subcontractors. Subcontracted activities shall remain subject to welding coordination in accordance with this standard.

4 Job specification

4.1 General

A job specification for the welding coordination personnel when required, e.g. by contracting parties or an application standard, shall include the tasks and responsibilities.

4.2 Tasks

Identification of the assigned tasks, see 3.2.

4.3 Responsibilities

Identification of the assigned responsibilities:

- position in the manufacturing organization and responsibilities;
- the extent of authorization to accept by signing on behalf of the manufacturing organization for e.g. procedure specification, supervision reports, as needed in order to fulfil the assigned tasks;
- the extent of authorization to carry out the assigned tasks.

5 Technical knowledge

5.1 General for all welding coordination personnel

For all tasks assigned, a welding coordination personnel shall be able to demonstrate adequate technical knowledge to enable such tasks to be performed satisfactorily.

The following factors should be considered:

- general technical knowledge;
- specialized technical knowledge relevant to the assigned tasks. This may be attained by a combination of theoretical knowledge, training and/or experience.

The extent of required manufacturing experience, education and technical knowledge should be decided by the manufacturing organization and will depend on the assigned tasks and responsibilities.

5.2 Authorized welding coordination personnel

5.2.1 General

Authorized welding coordination personnel (see **3.2**) should normally be allocated from one of the following groups. This will depend on the nature and/or complexity of the production. Adequate manufacturing experience need not necessarily be longer than 3 years.

5.2.2 Comprehensive technical knowledge

Welding coordination personnel with full technical knowledge according to **5.1** for planning, executing; supervisory and testing of all tasks and responsibilities in welding fabrication (see annex A).

5.2.3 Specific technical knowledge

Welding coordination personnel where technical knowledge is sufficient for planning, executing, supervisory and testing of the tasks and responsibilities in welding fabrication within a selective or limited technical field (see annex A).

5.2.4 Basic technical knowledge

Welding coordination personnel where technical knowledge is sufficient for planning, supervisory and testing of the tasks and responsibilities within a limited technical field involving only simple welded constructions (see annex A).

Table 1 — Welding related activities to be considered when appropriate

No.	Activities
1.1	Contract review
	— Welding capability and associated activities of the manufacturing organization
1.2	Design review
	— Relevant welding standards
	— Joint location with relation to the design requirements
	— Access for welding, inspection and testing
	— Weld joint details
	— Quality and acceptance requirements for welds
1.3	Materials
1.3.1	Parent metal
	— Weldability of the parent metal
	— Any supplementary requirements in the material purchasing specifications including the
	type of material certificate
	— Identification, handling and storage of parent metal
	— Traceability
1.3.2	Consumables
	— Compatibility
	— Delivery conditions
	— Any supplementary requirements in consumable purchasing specifications including the type
	of consumables certificate
	— Identification, storage and handling of consumables
1.4	Subcontracting
	— Suitability of any subcontractor
1.5	Production planning
	— Suitability of welding procedure specification (WPS) and approvals (WPAR)
	— Work instruction
	— Welding jigs and fixtures
	— Suitability and validity of welder approvals
	— Welding and assembly sequences for the structure
	— Production weld test requirements
	— Welding inspection requirements
	— Environmental conditions
	— Health and safety
1.6	Equipment
	— Suitability of welding and associated equipment
	— Auxiliaries and equipment supply, identification and handling
	— Health and safety
1.7	Welding operations
1.7.1	Preliminary activities
	— Issue of work instructions
	— Joint preparation, fit up and cleaning
	— Preparation of production weld tests
	— Suitability of the work area including the environment

 ${\bf Table~1-Welding~related~activities~to~be~considered~when~appropriate}$

No.	Activities
1.7.2	Welding
	— Assignment and instruction of welders
	— Use or function of equipment and accessories
	— Welding consumables and auxiliaries
	— Application of tack welding
	— Application of welding process parameters
	— Application of any intermediate testing
	— Application and method of preheating and post weld heat treatment
	— Welding sequence
	— Post weld treatment
1.8	Testing
1.8.1	Visual examination
	— Completeness of welding
	— Weld dimensions
	— Shape, dimensions and tolerances of the welded components
	— Joint appearance
1.8.2	Destructive and non-destructive testing
	— Application of destructive and non-destructive testing
	— Special tests
1.9	Weld acceptance
	— Assessment of inspection and test results
	— Weld repairs
	— Reassessment of repaired welds
	— Corrective action
1.10	Documentation
	— Preparation and maintenance of the necessary records (including subcontracted activities)

Annex A (informative) Recommendations on technical knowledge

The European Welding Federation (EWF) has, on a voluntary basis, prepared recommendations for minimum requirements for education, examination and certification of welding coordination personnel.

The recommendations are stated in the following documents:

— European Welding Engineer

Doc. EWF 02-409-93;

— European Welding Technologist

Doc. EWF 02-410-93;

— European Welding Specialist

Doc. EWF 02-411-93.

Welding coordination personnel fulfilling the requirements of these documents or holding acceptable national qualifications may be considered to satisfy relevant requirements of **5.2.2**, **5.2.3** and **5.2.4**.

National annex NA (informative)

Committees responsible

The United Kingdom participation in the preparation of this European Standard was entrusted by the Welding Standards Policy Committee (WEE/-) to Technical Committee WEE/36 upon which the following bodies were represented:

AEA Technology

Aluminium Federation

Associated Offices Technical Committee

Association of Consulting Scientists

British Constructional Steelwork Association Ltd.

British Gas plc

British Nuclear Fuels plc

British Railways Board

British Stainless Steel Association

Electricity Association

Engineering Equipment and Materials Users' Association

General, Municipal, Boilermakers' and Allied Trades Union

Health and Safety Executive

Lloyd's Register of Shipping

Ministry of Defence

Power Generation Contractors' Association (BEAMA Ltd.)

Process Plant Association

Railway Industry Association of Great Britain

Welding Institute

Welding Manufacturers' Association (BEAMA Ltd.)

Co-opted member

National annex NB (informative) Information on "welding personnel" and education

NB.1 This standard is intended to ensure that the tasks and responsibilities of all personnel involved in welding related activities are clearly defined.

The term "welding coordination personnel" has been introduced and users of the standard may find it more appropriate to read this term as "welding personnel".

The standard appears to differentiate between "welding personnel" and "authorized welding personnel" in **5.1** and **5.2**. Nevertheless the United Kingdom believes that all welding personnel should be authorized by their company for the activities which they are allotted.

This interpretation has been accepted by CEN/TC 121/SC 2 which drafted this standard.

NB.2 Informative annex A refers to certain educational levels established on a voluntary basis by the European Welding Federation. As specified in **5.1** the extent of education required by welding personnel should be decided by the manufacturing organization.

Many of the activities listed in Table 1 do not require the educational levels given in annex A.

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