

Specification and approval of welding procedures for metallic materials

Part 6. Approval related to previous experience

The European Standard EN 288 : Part 6 : 1994 has the status of a
British Standard

UDC 621 791.55 . 669 : 658.562

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United Kingdom	British Standards Institution

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National foreword

This British Standard has been prepared under the direction of the Engineering Sector Board and is the English language version of EN 288 *Specification and approval of welding procedures for metallic materials — Part 6. Approval related to previous experience*, published by the European Committee for Standardization (CEN).

EN 288-6 was produced as a result of international discussions in which the United Kingdom took an active part.

There has previously been no direct British Standard equivalent to this standard.

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

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

EUROPEAN STANDARD

EN 288-6

NORME EUROPÉENNE

EUROPÄISCHE NORM

August 1994

UDC 621.791.55 : 669 : 658.562

Descriptors: welding, arc welding, procedure, qualification

English version

Specification and approval of welding procedures for metallic materials —

Part 6: Approval related to previous experience

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

Partie 6: Qualification par référence à
l'expérience acquise

Anforderung und Anerkennung von
Schweißverfahren für metallische
Werkstoffe —

Teil 6: Anerkennung aufgrund vorliegender
Erfahrung

This European Standard was approved by CEN on 1994-08-17. 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

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Ref. No. EN 288-6 : 1994 E

Foreword

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

The Technical Committee CEN/TC 121 has decided to submit the final draft to the formal vote. The result was positive.

This standard consists of the following parts:

- Part 1: *General rules for fusion welding;*
- Part 2: *Welding procedure specification for arc welding;*
- Part 3: *Welding procedure tests for the arc welding of steels;*
- Part 4: *Welding procedure tests for the arc welding of aluminium and its alloys;*
- Part 5: *Approval by using approved welding consumables for arc welding;*
- Part 6: *Approval related to previous experience;*
- Part 7: *Approval by a standard welding procedure for arc welding;*
- Part 8: *Approval by a pre-production welding test.*

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 February 1995, and conflicting national standards shall be withdrawn at the latest by February 1995.

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 and United Kingdom.

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0 Introduction

In EN 288-1, one of the methods of welding procedure approval is by relating to previous experience.

Many manufacturers have considerable experience in fabricating welded structures. Welded components and structures may have been supplied to end users/clients for a variety of applications and have performed satisfactorily over a period of time in service. If this experience is traceable and documented this standard provides a route to welding procedure approval based on this experience.

1 Scope

This standard simplifies the conditions for approval of a welding procedure based on previous experience according to EN 288-1. In addition it gives the range of approval and the validity.

This standard applies to fusion welding of metallic materials. The process numbers refer to EN 24063.

Essentially this standard covers the following processes:

- 111 : Metal arc welding with covered electrode
- 114 : Flux cored metal-arc welding without gas shield
- 121 : Submerged arc welding with wire electrode
- 122 : Submerged arc welding with strip electrode
- 131 : Metal-arc inert gas welding; MIG-welding
- 135 : Metal-arc active gas welding; MAG-welding
- 136 : Flux cored wire metal-arc welding with active gas shield
- 137 : Flux cored wire metal-arc welding with inert gas shield
- 141 : Tungsten inert-gas arc welding; TIG-welding
- 15 : Plasma arc welding

Other welding processes may be accepted by agreement when sufficient experience is available.

The use of this standard may be restricted by an application standard or at the enquiry/order stage by the contracting parties.

2 Normative references

This European standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

- | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EN 288-1 | <i>Specification and approval of welding procedures for metallic materials — Part 1: General rules for fusion welding</i> |
| EN 288-2 | <i>Specification and approval of welding procedures for metallic materials — Part 2: Welding procedure specification for arc welding</i> |
| EN 288-3 | <i>Specification and approval of welding procedures for metallic materials — Part 3: Welding procedure tests for the arc welding of steels</i> |
| EN 288-4 | <i>Specification and approval of welding procedures for metallic materials — Part 4: Welding procedure tests for the arc welding of aluminium and its alloys</i> |
| EN 24063 | <i>Welding, brazing, soldering and braze welding of metals. Nomenclature of processes and reference numbers for symbolic representation on drawing</i> |

3 Definitions

For the purpose of this standard, the definitions listed in EN 288-1 shall apply.

4 Preliminary welding procedure specifications (pWPS)

The approval of a welding procedure based on previous experience shall be based on a pWPS according to EN 288-2. It shall specify the range for all the relevant parameters.

5 Approval of the welding procedure

The approval of the welding procedure shall be carried out by an examiner or test body according to EN 288-1.

The essential items for the approval are:

- pWPS according to EN 288 2;
- documentation of the existing previous experience (see clause 6).

6 Demonstration of existing previous experience

Previous experience shall be demonstrated by documented examination and/or test data and either a summary of welding manufacturing or satisfactory service performance. This shall involve:

- a) satisfactory documentation of tests (e.g. non-destructive, destructive, leak or pressure tests) in all cases;

AND

- b) a summary of welding manufacturing of at least one year during an appropriate period;

OR

- c) suitability of welds in service for an appropriate period.

A period of five years is considered as an appropriate period unless otherwise specified in the application standard or by agreement between contracting parties.

7 Range of approval

The range of approval given to a welding procedure approved in accordance with this part of this standard shall be as given in the appropriate Part of EN 288, e.g. EN 288-3 and EN 288-4.

An approval of WPS obtained by a manufacturer is valid for welding in workshops or sites under the same technical and quality control of that manufacturer.

8 Validity

The approved welding procedure based on previous experience is valid as far as the welding production is carried out in the specified range, see clause 6.

9 Documentation

The pWPS accepted by the examiner or a test body signed and dated is then an approved welding procedure and is to be retained on record by the manufacturer.

National annex NA (informative)**Committees responsible**

The United Kingdom participation in the preparation of this European Standard was entrusted by the Engineering Sector Board 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
 British Steel Industry
 Electricity Industry in United Kingdom
 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 members

National annex NB (informative)**Cross-references**

Publication referred to	Corresponding British Standard
	BS EN 288 <i>Specification and approval of welding procedures for metallic materials</i>
EN 288-1 : 1992	Part 1 : 1992 <i>General rules for fusion welding</i>
EN 288-2 : 1992	Part 2 : 1992 <i>Welding procedure specification for arc welding</i>
EN 288-3 : 1992	Part 3 : 1992 <i>Welding procedure tests for the arc welding of steels</i>
EN 288-4 : 1992	Part 4 : 1992 <i>Welding procedure tests for the arc welding of aluminium and its alloys</i>
EN 24063 : 1992	BS EN 24063 : 1992 <i>Welding, brazing, soldering and braze welding of metals. Nomenclature of processes and reference numbers for symbolic representation on drawings</i>

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