BRITISH STANDARD

BS EN
846-3:2000

Methods of test for ancillary components for masonry —

Part 3: Determination of shear load capacity of welds in prefabricated bed joint reinforcement

The European Standard EN 846-3:2000 has the status of a British Standard

ICS 91.080.30

National foreword

This British Standard is the official English language version of EN 846-3:2000, which is included in a package of new European Standards being prepared by CEN/TC 125 relating to ancillary components for masonry - bed joint reinforcement. No British Standard is being superseded.

The UK participation in its preparation was entrusted by Technical Committee B/519, Masonry and associated testing, to Subcommittee B/519/3, Ancillary components, which has the responsibility to:

— aid enquirers to understand the text;

— present to the responsible European committee any enquiries on the interpretation, or proposals for change, and keep the UK interests informed;

— monitor related international and European developments and promulgate them in the UK.

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

Cross-references

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Summary of pages

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

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English version

Methods of test for ancillary components for masonry - Part 3: Determination of shear load capacity of welds in prefabricated bed joint reinforcement

Méthodes d'essai des composants accessoires de maçonnerie - Partie 3: Détermination de la résistance au cisaillement des soudures dans l'armature du joint d'assise

Prüfverfahren für Ergänzungsbauteile für Mauerwerk - Teil 3: Bestimmung der Schubtragfähigkeit der Schweißstellen in vorgefertigter Lagerfugenbewehrung

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 125, Masonry, the Secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by August 2000, and conflicting national standards shall be withdrawn at the latest by September 2000.

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

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports the essential requirements of the EU Construction Products Directive (89/106/EEC) and includes the performance requirements referred to in the Eurocode for masonry structures.

1 Scope

This European Standard specifies a method for determining the shear strength of the welds in prefabricated bed joint reinforcement.

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.

prEN 845-3 Specification for ancillary components for masonry - Part 1: Bed joint reinforcement.

3 Principle

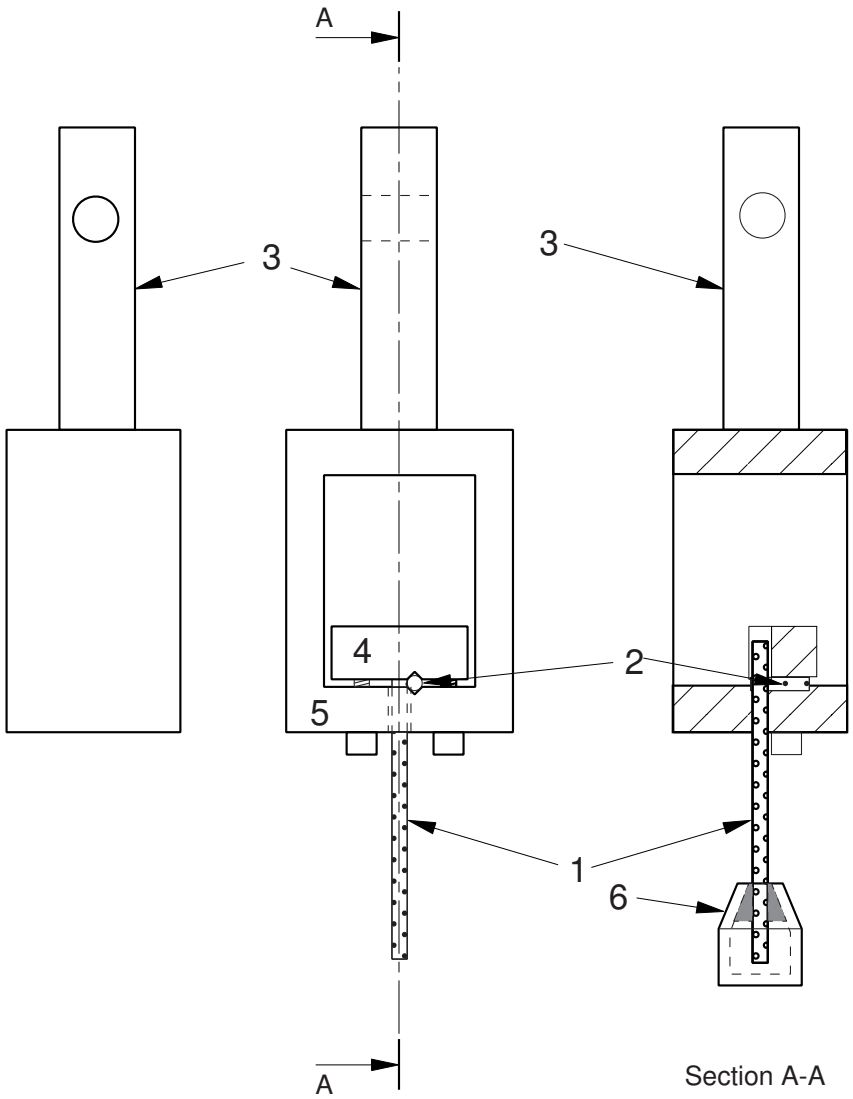
Samples of the welds in truss type prefabricated bed joint reinforcement are straightened (see Figure 2) and tested in a normal tensile test machine. Samples of the welds in ladder type reinforcement are held in a special clamp at one end and then tested in a normal tensile test machine.

4 Apparatus

4.1 Clamp, for ladder type welds that holds the specimen such that the cross wire is totally supported and prevented from turning or bending.

Note: A typical form of such a clamp is shown in Figure 1.

4.2 Test system, with a suitable load capacity. The load shall be measured using a device having a maximum error of 2 % of the full scale reading. The read-out shall be such that the maximum load reading or the reading at a specimen displacement of 0,1 mm, whichever is the lesser, occurs above 20 % of the full scale reading.



Key

1 Wire in tension
2 Anchored wire
3 Adapter for attachment to testing machine loading system
4 Upper clamp
5 Lower clamp
6 Wire chuck

Figure 1 - Test arrangement for ladder type weld specimens

5 Preparation of test specimens

5.1 Sampling

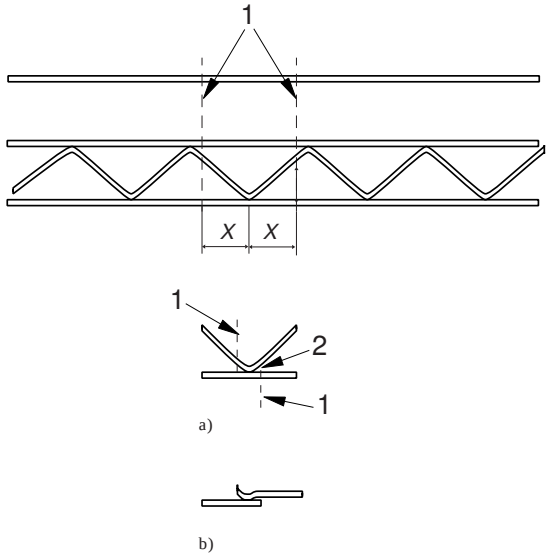
The cutting pattern should produce specimens suitable for clamping and applying longitudinal shear stress at or near the weld. At least five specimens shall be tested.

5.2 Test sample for truss type bed joint reinforcement

A length of bed joint reinforcement shall be cut from both sides of the weld as shown in Figure 2. On one side of the weld the longitudinal wire shall be cut away and on the other side the cross wire shall be cut away. The remaining cross wire shall then be straightened till it becomes almost the prolongation of the remaining longitudinal wire.

5.3 Test sample for ladder type bed joint reinforcement

A length of bed joint reinforcement shall be cut from either side of a weld and the cross wire shall be cut as shown in Figure 3.

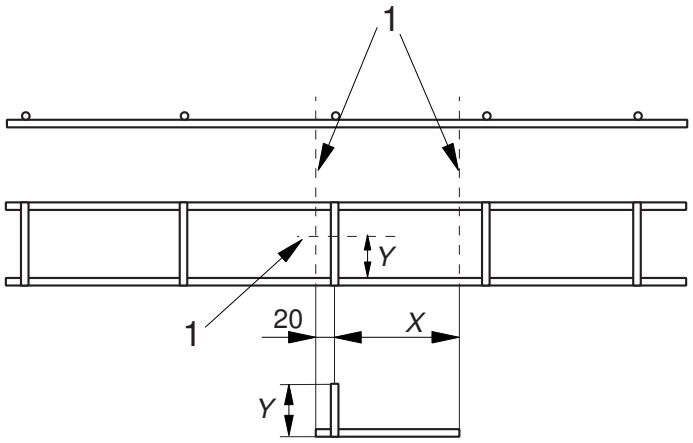


Note: X = 150 mm (recommended).

Key

1 Cut
2 Bend
a) Intermediate specimen
b) Resultant specimen

Figure 2 - Test specimen for truss type weld



a)

Note: X = 180 mm and Y = 30 mm (recommended).

Key

1 Cut
a) Resultant specimen

Figure 3 - Test specimen for ladder type weld

6 Procedure

6.1 Setting the specimen in the test machine

Fix truss type weld specimens in the jaws of the tensile test machine so that it will apply the load axially. Fix the clamp holding the specimen of ladder type weld in one jaw of the tensile test machine and the other end of the specimen in the other jaw.

6.2 Test environment

Carry out test under normal laboratory conditions.

6.3 Loading

Apply load at a uniform rate such that the specimen fails at 1,5 min ± 0,5 min from the commencement of load application. Record the load capacity of the weld to the nearest 50 N.

7 Expression of results

Calculate the mean shear load capacity as the arithmetic mean of the individual test results, to the nearest 50 N.

8 Test report

The test report shall include the following information:

a) the number, title and date of issue of this European Standard;

b) the description of the bed joint reinforcement, to the relevant standard prEN 845-3;

c) the name of the laboratory;

d) the date of testing the specimens;

e) the shear load capacity of each weld, to the nearest 50N;

f) the mean shear load capacity of the welds, to the nearest 50 N;

g) remarks, if any.

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