

Non-destructive examination of fusion welds  
Visual examination  
English version of DIN EN 970

**DIN**  
EN 970

ICS 25.160.40

Descriptors: Testing, welded joints, visual examination, metals.

Zerstörungsfreie Prüfung von Schmelzschweißnähten – Sichtprüfung

**European Standard EN 970:1997 has the status of a DIN Standard.**

*A comma is used as the decimal marker.*

**National foreword**

This standard has been prepared by CEN/TC 121.

The responsible German body involved in its preparation was the *Normenausschuß Schweißtechnik* (Welding Standards Committee).

EN comprises 13 pages.

*zurückgezogen - Withdrawn*

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English version

Non-destructive examination of fusion welds  
Visual examination

Contrôle non destructif des assemblages soudés par fusion – contrôle visuel      Zerstörungsfreie Prüfung von Schmelzschweißnähten – Sichtprüfung

This European Standard was approved by CEN on 1996-12-12.

CEN members are bound to comply with the CEN/GENELEC 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.

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**CEN**

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

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## Foreword

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

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of an identical text or by endorsement, at the latest by August 1997, and conflicting national standards shall be withdrawn at the latest by August 1997.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

It should be noticed that a standard covering the general principles of visual examination is under preparation by CEN/TC 138.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of 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 the United Kingdom.

## 1 Scope

This European Standard covers the visual examination of fusion welds in metallic materials. The examination is normally performed on welds in the as-welded condition but exceptionnally, for example when required by an application standard or by agreement between the contracting parties, the examination may be carried out at other stages during the welding process.

## 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 288-2		Specification and approval of welding procedures for metallic materials - Part 2 : Welding procedure specification for arc welding
EN 473		Qualification and certification of NDT personnel - General principles
prEN 12062		Non-destructive examination of welds - General rules
EN 25817		Arc-welded joints in steel - Guidance on quality levels for imperfections (ISO 5817:1992)
EN 30042		Arc-welded joints in aluminium and its weldable alloys - Guidance on quality levels for imperfections (ISO 10042:1992)
ISO 3058 :	1974	Non-destructive testings - Aids to visual inspection - Selection of low power magnifiers
ISO 3599 :	1976	Vernier callipers reading to 0,1 and 0,05 mm

## 3 Examination conditions and equipment

The illuminance at the surface, shall be a minimum of 350 lx, 500 lx are recommended.

For performance of direct inspection, the access shall be sufficient to place the eye within 600 mm of the surface to be examined and at an angle not less than approximately 30 ° (see figure 1).