

**Leveransbestämmelser för ytbeskaffenhet hos  
varmvalsad plåt, bredplattstång och profiler av  
stål –**

Del 1: Allmänna bestämmelser

**Delivery requirements for surface condition of  
hot-rolled steel plates, wide flats and sections –  
Part 1: General requirements**

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The European Standard EN 10163-1:2004 has the status of a Swedish Standard. This document contains the official English version of EN 10163-1:2004.

This standard supersedes the Swedish Standard SS-EN 10163-1, edition 1.

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English version

## Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections - Part 1: General requirements

Conditions de livraison relatives à l'état de surface des tôles, larges plats et profilés en acier laminés à chaud -  
Partie 1: Généralités

Lieferbedingungen für die Oberflächenbeschaffenheit von warmgewalzten Stahlerzeugnissen (Blech, Breitflachstahl und Profile) - Teil 1: Allgemeine Anforderungen

This European Standard was approved by CEN on 4 November 2004.

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.

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**EN 10163-1:2004 (E)**

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## Foreword

This document (EN 10163-1:2004) has been prepared by Technical Committee ECISS/TC 10 “Structural steels – Grades and qualities”, the secretariat of which is held by NEN.

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of an identical text or by endorsement, at the latest by June 2005, and conflicting national standards shall be withdrawn at the latest by June 2005.

This document supersedes EN 10163-1:1991, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections – Part 1: General requirements*.

This document covers the general delivery requirements for the surface condition of hot-rolled steel products such as:

- plates and wide flats, see Part 2;
- sections, see Part 3.

During the 5 year review of EN 10163-1:1991 the members of ECISS/TC 10 agreed to revise EN 10163-1:1991. It was asked to bring the text in line with ECISS DOCS N 809 “Iron and steel standardization – Model for a product standard”.

This document includes a Bibliography.

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

## EN 10163-1:2004 (E)

### 1 Scope

**1.1** This document specifies the general requirements for the surface condition of hot-rolled steel plates, wide flats and sections. It covers the requirements on the type, the permissible depth and the permissible size of the surface area affected by:

- discontinuities (imperfections and defects) and
- repairs by grinding and/or welding.

**1.2** This document shall be applied so far as no other requirements for the surface condition exist in the appropriate material or product standard. The requirements laid down in the appropriate material or product standard shall always prevail.

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 287-1, *Qualification test of welders – Fusion welding – Part 1: Steels.*

EN 288-2, *Specification and approval of welding procedures for metallic materials – Part 2: Welding procedure specification for arc welding.*

EN 288-3, *Specification and approval of welding procedures for metallic materials – Part 3: Welding procedure tests for the arc welding of steels.*

EN 10079:1992, *Definition of steel products.*

EN 10163-2:2004, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections – Part 2: Plate and wide flats.*

EN 10163-3:2004, *Delivery requirements for surface condition of hot-rolled steel plates, wide flats and sections – Part 3: Sections.*

EN ISO 15607, *Specification and qualification of welding procedures for metallic materials – General rules (ISO 15607:2003).*

NOTE In Annex C EURONORM 19, 53 and 54 are mentioned with corresponding national standards. These EURONORMS are formally withdrawn, but there are no corresponding EN's. Therefore they are not mentioned in this clause.

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 10079:1992, EN 10163-2:2004 and EN 10163-3:2004 apply.

NOTE For the most common surface discontinuities see the descriptions in Annex A. In Annex B the terms can be found in their respective languages.

### 4 General

Responsibility for the required surface condition, whether the product is delivered descaled or not, rests with the material producer, who has to take the necessary precautions. The producer can only take account of

discontinuities which are visible to the naked eye. Rolling or heat-treatment scale may conceal surface discontinuities.

If, during the subsequent descaling or working operations by the user, the material is found to be defective because of faulty rolling or processing by the producer, the producer shall be given opportunity to repair the product provided that this is not in conflict with the appropriate material or product standard.

## 5 Classification

The surface requirements and repair conditions are subdivided into classes as specified in EN 10163-2 and EN 10163-3.

## 6 Requirements

### 6.1 Depth and affected area of discontinuities

#### 6.1.1 Depth

To differentiate the surface discontinuities in terms of imperfections and defects, the depth of representative surface discontinuities shall when necessary be measured. The measurement shall be carried out from the surface of the product. The depth of the discontinuities chosen as representative ones shall be determined after the discontinuity has been removed by grinding.

#### 6.1.2 Affected area

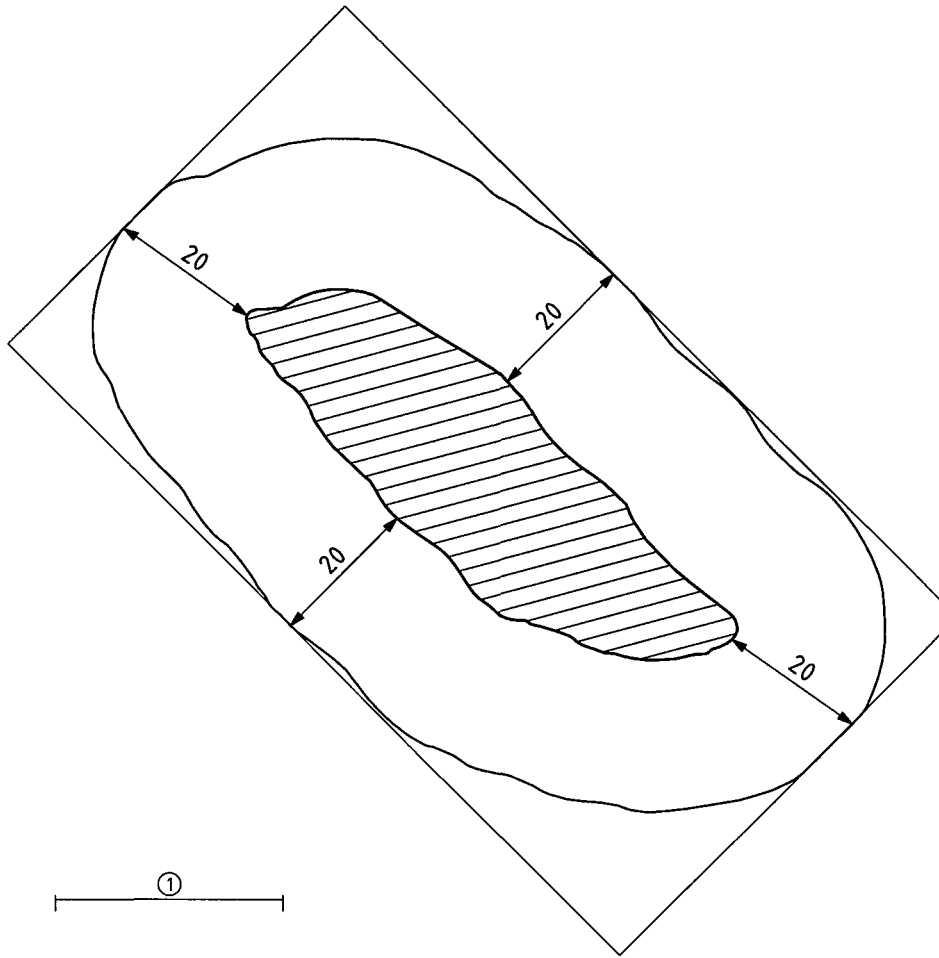
Areas affected by surface discontinuities shall when necessary be determined as follows:

- a) for isolated discontinuities (Figure 1) the affected area is obtained by drawing a continuous line which follows the circumference of the discontinuity at a distance of 20 mm or by drawing a rectangle whose sides are 20 mm from the edges of the discontinuity;
- b) for discontinuities appearing in a cluster (Figure 2), the affected area is obtained by drawing a continuous line which follows the circumference of the cluster at a distance of 20 mm or by drawing a rectangle whose sides are 20 mm from the continuous line which follows the cluster or by the product edge if this is closer.

For discontinuities appearing in a line (Figure 3), the affected area is obtained by drawing a rectangle the sides of which are 20 mm in the longitudinal direction and 20 mm in the transverse direction from the edge of the discontinuity or by the product edge if this is closer.

Multiple appearing discontinuities whose edges are closer together than 40 mm shall be considered as one cluster.

Dimensions in millimetres



1 Horizontal line

Figure 1 — Determination of the area affected by an isolated discontinuity