



# SLOVENSKI STANDARD SIST EN ISO 377:2013

01-september-2013

Nadomešča:  
SIST EN ISO 377:1998

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## Jeklo in jekleni izdelki - Mesto jemanja in priprava vzorcev ter preskušanci za mehansko preskušanje (ISO 377:2013)

Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:2013)

Stahl und Stahlerzeugnisse - Lage und Vorbereitung von Probenabschnitten und Proben für mechanische Prüfungen (ISO 377:2013)

Acier et produits en acier - Position et préparation des échantillons et éprouvettes pour essais mécaniques (ISO 377:2013)

Ta slovenski standard je istoveten z: EN ISO 377:2013

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### ICS:

77.040.10	Mehansko preskušanje kovin	Mechanical testing of metals
77.140.01	Železni in jekleni izdelki na splošno	Iron and steel products in general

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en,fr

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN ISO 377**

July 2013

ICS 77.040.10

Supersedes EN ISO 377:1997

English Version

## Steel and steel products - Location and preparation of samples and test pieces for mechanical testing (ISO 377:2013)

Acier et produits en acier - Position et préparation des  
échantillons et éprouvettes pour essais mécaniques (ISO  
377:2013)

Stahl und Stahlerzeugnisse - Lage und Vorbereitung von  
Probenabschnitten und Proben für mechanische Prüfungen  
(ISO 377:2013)

This European Standard was approved by CEN on 29 June 2013.

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## Foreword

This document (EN ISO 377:2013) has been prepared by Technical Committee ISO/TC 17 “Steel” in collaboration with Technical Committee ECISS/TC 100 “General issues” 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of an identical text or by endorsement, at the latest by January 2014, and conflicting national standards shall be withdrawn at the latest by January 2014.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

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INTERNATIONAL  
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377

Third edition  
2013-07-01

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**Steel and steel products — Location  
and preparation of samples and test  
pieces for mechanical testing**

*Acier et produits en acier — Position et préparation des échantillons  
et éprouvettes pour essais mécaniques*

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## ISO 377:2013(E)

## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. [www.iso.org/directives](http://www.iso.org/directives)

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. [www.iso.org/patents](http://www.iso.org/patents)

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

The committee responsible for this document is ISO/TC 17, *Steel*, Subcommittee SC 20, *General technical delivery conditions, sampling and mechanical testing methods*.

This third edition cancels and replaces the second edition (ISO 377:1997), which has been technically revised and includes ISO 377:1997/Cor.1:1997.

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# Steel and steel products — Location and preparation of samples and test pieces for mechanical testing

## 1 Scope

This International Standard specifies requirements for the identification, location and preparation of samples and test pieces intended for mechanical tests on steel sections, bars, rod, flat products and tubular products as defined in ISO 6929. If agreed in the order, this International Standard can also apply to other metallic products. These samples and test pieces are for use in tests that are carried out in conformity with the methods specified in the product or material standard or, in the absence of this, in the standard for the test method.

Where the requirements of the order or product standard differ from those given in this International Standard, then the requirements of the order or product standard apply.

## 2 Normative references

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

ISO 3785, *Metallic materials — Designation of test specimen axes in relation to product texture*

ISO 6929, *Steel products — Vocabulary*

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## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 6929 and the following apply.

### 3.1

#### test unit

number of pieces or the tonnage of products to accept or reject together, on the basis of the verification tests carried out on sample products in accordance with the requirements of the product standard or order

Note 1 to entry: See [Figure 1](#).

### 3.2

#### sample product

item (e.g. bar, sheet, coil) selected for inspection or testing

Note 1 to entry: See [Figure 1](#).

### 3.3

#### sample

sufficient quantity of material taken from the sample product for the purpose of producing one or more test pieces

Note 1 to entry: See [Figure 1](#).

Note 2 to entry: In certain cases, the sample can be the sample product.

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### 3.4

#### **rough specimen**

part of a sample having undergone mechanical treatment, for the purpose of producing a test piece

Note 1 to entry: See [Figure 1](#).

### 3.5

#### **test piece**

part of a sample or rough specimen, with specified dimensions, machined or unmachined, brought to a required condition for submission to a given verification test

Note 1 to entry: See [Figure 1](#).

Note 2 to entry: In certain cases, the test piece can be the sample or the rough specimen.

### 3.6

#### **reference condition**

condition of a sample, rough specimen or test piece having undergone a heat treatment to represent the intended final condition of the product

Note 1 to entry: In such cases, the sample, rough specimen or test piece is called the reference sample, reference rough specimen or reference test piece.

## 4 General requirements

### 4.1 Representative testing

Sample, rough specimens and test pieces selected in accordance with [Annex A](#) shall be considered to be representative of the product.

NOTE As a result of their production sequence, e.g. melting, casting, hot or cold forming or both, heat treatment etc., steel products are not homogeneous. The mechanical properties of samples taken from other locations can be different.

### 4.2 Identification of sample products, samples, rough specimens and test pieces

Sample products, samples, rough specimens and test pieces shall be marked to ensure traceability to the original product and their location and orientation in that product. For this purpose, if, during the preparation of any one or more of the samples, rough specimens or test pieces, removal of the marks cannot be avoided, transfer of these marks shall be carried out before the existing marks are removed or in the case of automatic preparation equipment before the test piece is removed from the equipment. In the case of specific inspection and where requested by the purchaser, the transfer of the marks shall be carried out in the presence of the purchaser's representative.

In the case of fully automatic in line preparation and testing systems, marking of samples, rough specimens and test pieces is not necessary if an adequate control system exists, which defines the procedures to follow in the event of system failure.