



SLOVENSKI STANDARD
SIST EN ISO 8492:2004

01-november-2004

BUXca Yý U
SIST EN 10233:1998

Metalski materiali - cevica - preizkus ravnanja (ISO 8492:1998)

Metallic materials - Tube - Flattening test (ISO 8492:1998)

Metallische Werkstoffe - Rohr - Ringfaltversuch (ISO 8492:1998)

Matériaux métalliques - Tubes - Essai d'aplatissement (ISO 8492:1998)

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Ta slovenski standard je istoveten z: EN ISO 8492:2004

<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-d95d52ec0fa/sist-en-iso-8492-2004>

ICS:

77.040.10 Mehansko preskušanje kovin Mechanical testing of metals

SIST EN ISO 8492:2004

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 8492:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 8492

July 2004

ICS 77.040.10

Supersedes EN 10233:1993

English version

Metallic materials - Tube - Flattening test (ISO 8492:1998)

Matériaux métalliques - Tubes - Essai d'aplatissement (ISO 8492:1998)

Metallische Werkstoffe - Rohr - Ringfaltversuch (ISO 8492:1998)

This European Standard was approved by CEN on 1 July 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.

CEN members are the national standards bodies of 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.

ITh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 8492:2004
<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004>



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

Management Centre: rue de Stassart, 36 B-1050 Brussels

EN ISO 8492:2004 (E)**Foreword**

The text of ISO 8492:1998 has been prepared by Technical Committee ISO/TC 164 "Mechanical testing of metals" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 8492:2004 by Technical Committee EC/ISS/TC 29 "Steel tubes and fittings for steel tubes", the secretariat of which is held by UNI.

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 2005, and conflicting national standards shall be withdrawn at the latest by January 2005.

This document supersedes EN 10233:1993.

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.

Endorsement notice

The text of ISO 8492:1998 has been approved by CEN as EN ISO 8492:2004 without any modifications.

iTeh STANDARD PREVIEW
(standards.iteh.ai)
[SIST EN ISO 8492:2004](https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004)
<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004>

INTERNATIONAL STANDARD

**ISO
8492**

Second edition
1998-11-01

Metallic materials — Tube — Flattening test

Matériaux métalliques — Tubes — Essai d'aplatissement

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 8492:2004](https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004)

<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004>



Reference number
ISO 8492:1998(E)

ISO 8492:1998(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8492 was prepared by Technical Committee ISO/TC 164, *Mechanical testing of metals*, Subcommittee SC 2, *Ductility testing*.

This second edition cancels and replaces the first edition (ISO 8492:1986), of which it constitutes a technical revision.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 8492:2004](https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004)

<https://standards.iteh.ai/catalog/standards/sist/710a58e3-2725-47d4-9c11-f985d52ec0fa/sist-en-iso-8492-2004>

© ISO 1998

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet iso@iso.ch

Printed in Switzerland

Metallic materials — Tube — Flattening test

1 Scope

This International Standard specifies a method for determining the ability of metallic tubes of circular cross-section to undergo plastic deformation by flattening. It may also be used to reveal the defects in the tubes.

This International Standard is applicable to tubes having an outside diameter no greater than 600 mm and a thickness no greater than 15 % of the outside diameter. The range of the outside diameter or thickness, for which this International Standard is applicable may be more exactly specified in the relevant product standard.

2 Symbols, designations and units

Symbols, designations and units for the flattening test are given in table 1 and are shown in figure 1.

Table 1

Symbol	Designation	Unit
a^a	Wall thickness of the tube	mm
b	Inside width of flattened test piece	mm
D	Outside diameter of the tube	mm
H	Distance between platens measured under load	mm
L	Length of the test piece	mm

^a The symbol T is also used in steel tube standards.

3 Principle

Flattening the end of a tube or a test piece of specified length, cut from a tube in a direction perpendicular to the longitudinal axis of the tube, until the distance between platens measured under load in the direction of flattening reaches a value specified in the relevant product standard [see figure 1, a) and b)].

In the case of close flattening, the internal surfaces of the test piece shall be in contact over at least half of the internal width b of the flattened test piece standard [see figure 1 c)].

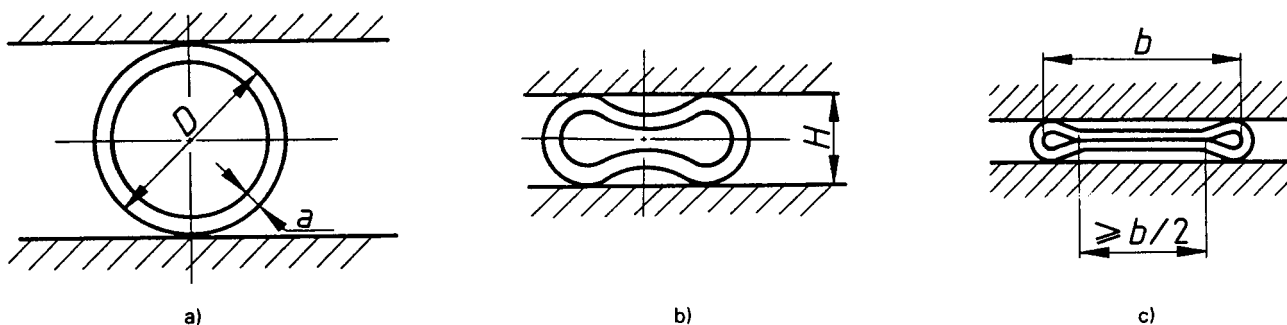


Figure 1

4 Testing equipment

4.1 Test machine, capable of flattening the test piece to the prescribed distance H between two plane, parallel, rigid platens.

The width of the platens shall exceed the width of the test piece after flattening i.e. at least $1,6 D$, and the length of the platens shall extend over the whole length of the test piece.

5 Test piece

5.1 The length of a test piece shall be no less than 10 mm and no more than 100 mm. The edges of the test piece may be rounded by filing or chamfered by other methods.

NOTE — Non-rounded or non-chamfered edges are permissible if the test result meets the test requirements.

5.2 When the test is carried out on the end of a full-length tube, the tube shall be cut at right angles to the axis of the tube to a depth of at least 80 % of the tube outside diameter. The cut shall be at a distance from the end of the tube equal to the length of the test piece.

6 Procedure

6.1 In general, the test shall be carried out at ambient temperature within the limits of 10 °C to 35 °C. The test carried out under controlled conditions shall be made at a temperature of $23\text{ °C} \pm 5\text{ °C}$.

6.2 Place the test piece between two platens.

6.3 Ensure that the weld of the welded tubes is in position as required by the relevant product standard.

6.4 Flatten the test piece by moving the platens in a direction perpendicular to the longitudinal axis of the tube.

6.5 In case of dispute, the rate of movement of the platens shall not exceed 25 mm/min.

6.6 Interpretation of the flattening test shall be carried out in accordance with the requirements of the relevant product standard. When these requirements are not specified, the test piece shall be considered to have passed the test if no cracks are visible without the use of magnifying aids. Slight cracking at the edges shall not be considered cause for rejection.

7 Test report

A test report shall be provided when so specified in the relevant product standard. In this case, the test report shall include at least the following information:

- a) reference to this International Standard, i.e. ISO 8492;
- b) identification of the test piece;
- c) dimensions of the test piece;
- d) distance between platens;
- e) position of the weld, if relevant;
- f) result of the test.