SLOVENSKI STANDARD
SIST EN 20898-7:1996

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Mehanske lastnosti veznih elementov - 7. del: Vzvojni (torzijski) preskus in najmanjši lomni momenti za vijake M1 do M10

Mechanical properties of fasteners - Part 7: Torsional test and minimum torques for bolts and screws with nominal diameters 1 mm to 10 mm (ISO 898-7:1992)

Mechanische Eigenschaften von Verbindungselementen - Teil 7: Torsionsversuch und Mindest-Bruchdrehmomente für Schrauben mit Nenndurchmessern 1 mm bis 10 mm (ISO 898-7:1992)

Caractéristiques mécaniques des éléments de fixation - Partie 7: Essai de torsion et couples minimaux de rupture des vis de diametre nominal de filetage de 1 mm a 10 mm (ISO 898-7:1992)

Ta slovenski standard je istoveten z: **EN 20898-7:1995**

ICS:

21.060.10 Sorniki, vijaki, stebelni vijaki Bolts, screws, studs

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English version

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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 taken over by the Technical Committee CEN/TC 185 "Threaded and non-threaded mechanical fasteners and accessories" from the work of ISO/TC 2 "Fasteners" of the International Organization for Standardization (ISO).

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of an identical text or by endorsement, at the latest by July 1995, and conflicting national standards shall be withdrawn at the latest by July 1995.

According to the CEN/CENELEC Internal Regulations, 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, United Kingdom.

Endorsement notice

The text of the International Standard ISO 898-7:1992 has been approved by CEN as a European Standard without any modification.

NOTE: Normative references to international publications are listed in annex ZA (normative).

Annex ZA (normative)
Normative references to international publications with their relevant European publications

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 (including amendments).

Publication	Year	Title	EN	Year
ISO 898-1	1988	Mechanical properties of fasteners - Part 1: Bolts, screws and studs	EN 20898-1	1991

INTERNATIONAL STANDARD

ISO 898-7

First edition
1992-11-01

Mechanical properties of fasteners —

Part 7:
Torsional test and minimum torques for bolts and screws with nominal diameters 1 mm to 10 mm

Caractéristiques mécaniques des éléments de fixation —

Partie 7: Essai de torsion et couples minimaux de rupture des vis de diamètre nominal de filetage de 1 mm à 10 mm

Reference number
ISO 898-7:1992(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 898-7 was prepared by Technical Committee ISO/TC 2, *Fasteners*, Sub-Committee SC 1, *Mechanical properties of fasteners*.

ISO 898 consists of the following parts, under the general title *Mechanical properties of fasteners*:

— *Part 1: Bolts, screws and studs*

— *Part 2: Nuts with specified proof load values — Coarse thread*

— *Part 5: Set screws and similar threaded fasteners not under tensile stresses*

— *Part 6: Nuts with specified proof load values — Fine pitch thread*

— *Part 7: Torsional test and minimum torques for bolts and screws with nominal diameters 1 mm to 10 mm*

Annex A of this part of ISO 898 is for information only.

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Mechanical properties of fasteners —

Part 7:
Torsional test and minimum torques for bolts and screws with nominal diameters 1 mm to 10 mm

1 Scope

This part of ISO 898 specifies a torsional test for the determination of the breaking torque of bolts and screws with nominal diameters 1 mm to 10 mm with property classes 8.8 to 12.9 in accordance with ISO 898-1. The test applies to bolts and screws with thread less than M3 for which no breaking and proof loads are indicated in ISO 898-1, as well as to short bolts and screws with nominal diameters 3 mm to 10 mm which cannot be subjected to a tensile test.

The minimum breaking torques are not valid for hexagon socket set screws.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 898. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 898 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 898-1:1988, *Mechanical properties of fasteners — Part 1: Bolts, screws and studs.*

3 Torsional test

3.1 Principle

Determination of the breaking torque by clamping the bolt or screw to be tested into a test device.

3.2 Apparatus

3.2.1 Test device for torsional test, such as is shown in figure 1.

3.2.2 Torquemeter, with a scale which shall not exceed the quintuple of the respective minimum breaking torque. The maximum inaccuracy of the torquemeter shall be ± 7 % of the minimum breaking torque to be tested.

3.3 Test conditions

The bolt or screw shall be exclusively subjected to torsion whereby the respective minimum breaking torque according to table 2 shall be reached before rupture occurs. The test result shall not be influenced by head friction or by thread friction.

3.4 Procedure

Clamp the bolt or screw into the test device over at least two full threads, having a free thread length of at least one thread diameter present between the head of the bolt or screw and the threaded insert (see figure 1). Apply the torque in a continuously increasing manner.