This document is a preview generated by EVS

Üldtolerantsid. Osa 1: Tolerantsid joon- ja nurkmõõtmetele tolerantse vahetult näitamata

General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 22768-1:1999 sisaldab Euroopa standardi EN 22768-1:1993 ingliskeelset teksti.	This Estonian standard EVS-EN 22768-1:1999 consists of the English text of the European standard EN 22768-1:1993.
Standard on jõustunud sellekohase teate avaldamisel EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 22.04.1993.	Date of Availability of the European standard is 22.04.1993.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

This document is a preview generated by EVS

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 17.040.10

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardikeskusele

Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardikeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardikeskusega:
Aru 10, 10317 Tallinn, Eesti; www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying,without a written permission from the Estonian Centre for Standardisation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation:
Aru 10, 10317 Tallinn, Estonia; www.evs.ee; phone 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 22768-1:1993

April 1993

UDC 621.713.12:744.4

Descriptors: Machine components, dimensional tolerances, angular tolerances, untoleranced dimensions, dimensional deviations, specifications

English version

General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications (ISO 2768-1:1989)

Tolérances générales - Partie 1: Tolérances pour dimensions linéaires et angulaires non affectées de tolérances individuelles (ISO 2768-1:1989)

Allgemeintoleranzen - Teil 1: Toleranzen für Längen- und Winkelmaße ohne einzelne Toleranzeintragung (ISO 2768-1:1989)

This European Standard was approved by CEN on 1993-04-15. 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.

The European Standards exist 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CEN

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

Central Secretariat: rue de Stassart, 36 B-1050 Brussels

© 1993 Copyright reserved to CEN members

This document is a preview generated by EVS

Foreword

In 1991, the International Standard ISO 2768-1:1989 "General tolerances - Part 1: Tolerances for linear and angular dimensions without individual tolerance indications" was submitted to the CEN Primary Questionnaire procedure.

Following the positive result of the CEN/CS Proposal, ISO 2768-1:1989 was submitted to the Formal Vote.

The result of the Formal Vote was positive.

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 October 1993, and conflicting national standards shall be withdrawn at the latest by October 1993.

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 2768-1:1989 was approved by CEN as a European Standard without any modification.

NOTE: The European references to international publications are given in annex ZA (normative).

This document is a preview generated by EVS

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	Title	EN/HD
ISO 2768-2	General tolerances - Part 2: Geometrical tolerances for features without individual tolerances indications	EN 22768-2
ISO 8015	Technical drawings - Fundamental tolerancing principle	

This document is a preview generated by EVS

This document is a preview generated by EVS

Introduction

All features on component parts always have a size and a geometrical shape. For the deviation of size and for the deviations of the geometrical characteristics (form, orientation and location) the function of the part requires limitations which, when exceeded, impair this function.

The tolerancing on the drawing should be complete to ensure that the elements of size and geometry of all features are controlled, i.e. nothing shall be implied or left to judgement in the workshop or in the inspection department.

The use of general tolerances for size and geometry simplifies the task of ensuring that this prerequisite is met.

This document is a preview generated by EVS

General tolerances —

Part 1:
Tolerances for linear and angular dimensions without individual tolerance indications

1 Scope

This part of ISO 2768 is intended to simplify drawing indications and it specifies general tolerances for linear and angular dimensions without individual tolerance indications in four tolerance classes.

NOTE 1 — The concepts behind the general tolerancing of linear and angular dimensions are described in annex A.

It applies to the dimensions of parts that are produced by metal removal or parts that are formed from sheet metal.

NOTES

2 These tolerances may be suitable for use with materials other than metal.

3 Parallel International Standards exist or are planned, e.g. see ISO 8062[1)] for castings.

This part of ISO 2768 only applies for the following dimensions which do not have an individual tolerance indication:

a) linear dimensions (e.g. external sizes, internal sizes, step sizes, diameters, radii, distances, external radii and chamfer heights for broken edges);

b) angular dimensions, including angular dimensions usually not indicated, e.g. right angles (90°), unless reference to ISO 2768-2 is made, or angles of uniform polygons;

c) linear and angular dimensions produced by machining assembled parts.

It does not apply for the following dimensions:

a) linear and angular dimensions which are covered by reference to other standards on general tolerances;

b) auxiliary dimensions indicated in brackets;

c) theoretically exact dimensions indicated in rectangular frames.

2 General

When selecting the tolerance class, the respective customary workshop accuracy has to be taken into consideration. If smaller tolerances are required or larger tolerances are permissible and more economical for any individual feature, such tolerances should be indicated adjacent to the relevant nominal dimension(s).

General tolerances for linear and angular dimensions apply when drawings or associated specifications refer to this part of ISO 2768 in accordance with clauses 4 and 5. If there are general tolerances for other processes, as specified in other International Standards, reference shall be made to them on the drawings or associated specifications. For a dimension between an unfinished and a finished surface, e.g. of cast or forged parts, for which no individual tolerance is directly indicated, the larger of the two general tolerances in question applies, e.g. for castings, see ISO 8062[1)].

3 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 2768. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 2768 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 2768-2 : 1989, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications.*

ISO 8015 : 1985, *Technical drawings — Fundamental tolerancing principle.*

4 General tolerances

4.1 Linear dimensions

General tolerances for linear dimensions are given in tables 1 and 2.

1) ISO 8062 : 1984, *Castings — System of dimensional tolerances.*