

**Pipe threads where pressure-tight joints are
not made on the threads - Part 2:
Verification by means of limit gauges**

Pipe threads where pressure-tight joints are not
made on the threads - Part 2: Verification by means
of limit gauges

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 228-2:2003 sisaldab Euroopa standardi EN ISO 228-2:2003 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 06.06.2003 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 228-2:2003 consists of the English text of the European standard EN ISO 228-2:2003.</p> <p>This document is endorsed on 06.06.2003 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
--	---

<p>Käsitlusala: This part of ISO 228 specifies the verification by means of limit gauges, of cylindrical threads, the dimensions and tolerances of which are given in ISO 228-1</p>	<p>Scope: This part of ISO 228 specifies the verification by means of limit gauges, of cylindrical threads, the dimensions and tolerances of which are given in ISO 228-1</p>
--	--

ICS 21.040.30

Võtmesõnad: go-ring gauges, inspection, inspection equipment, limit gauges, measuring instruments, pipe threads, pipelines, pipes, pipework systems, ring gauges, screw threads, testing, thread gauges, threads, tubes, verification, whitworth screw threads

English version

**Pipe threads where pressure-tight joints are not
made on the threads**

**Part 2: Verification by means of limit gauges
(ISO 228-2 : 1987)**

Filetages de tuyauterie pour raccorde-
ment sans étanchéité dans le filet –
Partie 2: Vérification par calibres à
limites (ISO 228-2 : 1987)

Rohrgewinde für nicht im Gewinde
dichtende Verbindungen – Teil 2:
Prüfung mit Grenzlehren
(ISO 228-2 : 1987)

This European Standard was approved by CEN on 2002-12-27.

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 Management Centre 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 Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

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

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

Foreword

International Standard

ISO 228-2 : 1987 Pipe threads where pressure-tight joints are not made on the threads – Part 2: Verification by means of limit gauges,

which was prepared by ISO/TC 5 'Ferrous metal pipes and metallic fittings' of the International Organization for Standardization, has been adopted by Technical Committee ECISS/TC 29 'Steel tubes and fittings for steel tubes', the Secretariat of which is held by UNI, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by August 2003 at the latest.

In accordance with the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, the Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 228-2 : 1987 was approved by CEN as a European Standard without any modification.

1 Scope and field of application

This part of ISO 228 specifies the verification, by means of limit gauges, of cylindrical threads, the dimensions and tolerances of which are given in ISO 228-1.

For industrial applications (see for example ISO 1179), it may be necessary to carry out additional checks.

Since this 55° profile has different elements to be verified, it is necessary to provide for several GO and several NOT GO gauges :

- a) the threaded GO gauges (see clauses 6 and 7) shall ensure that the profile of the machined piece does not exceed the maximum of material provided for by the tolerances applied to the dimensions of the profile defined by ISO 228-1;
- b) the threaded NOT GO gauges for the threads of the pieces (see clauses 6 and 7) fix the minimum material limit on the flanks of the thread.

NOTE — Reference checks may be carried out in specialized laboratories.

2 References

ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads — Part 1 : Designation, dimensions and tolerances.*

ISO 1179, *Pipe connections, threaded to ISO 228-1, for plain end steel and other metal tubes in industrial applications.*

ISO 1502, *ISO general purpose metric screw threads — Gauging.*

3 Symbols and explanations

The symbols used in this part of ISO 228 are the same as those used in ISO 1502 for the ISO thread gauges, plus some additional symbols (n , S , u), as shown in table 1.

Table 1

Symbol	Explanation
b_3	Width of clearance groove at the major and minor diameter respectively of the thread profile with truncated flanks
$d = D$	Basic major diameter of the thread
$d_1 = D_1$	$= d - 1,280\,654\,P$: Basic minor diameter of the thread
$d_2 = D_2$	$= d - 0,640\,327\,P$: Basic pitch diameter of the thread
m	Distance between the middle of the tolerance zones T_R of the threaded ring gauge and T_{CP} of the GO check plug
n	Nominal value of b_3
P	Pitch
s	Displacement of the clearance groove with truncated flanks
S	Tolerance on b_3
T_{CP}	Tolerance on the pitch diameter of GO and NOT GO threaded check plugs and wear check plugs
T_{d2}	Tolerance on the pitch diameter of the external thread
T_{D2}	Tolerance on the pitch diameter of the internal thread
T_{PL}	Tolerance on the pitch diameter of GO and NOT GO threaded plug gauges
T_R	Tolerance on the pitch diameter of GO and NOT GO threaded ring gauges
u	$= 0,147\,84\,P$: Twice the radial height of rounding at crest and root of thread
W_{GO}	Average amount available for the permissible wear of GO threaded plug gauge and GO threaded ring gauge
W_{NG}	Average amount available for the permissible wear of NOT GO threaded plug gauge and NOT GO threaded ring gauge
Z_{PL}	Distance between the middle of the tolerance zone T_{PL} of the GO threaded plug gauge and the lower limit of the thread
Z_R	Distance between the middle of the tolerance zone T_R of the GO threaded ring gauge and the upper limit of the thread