



SLOVENSKI STANDARD

SIST EN 10226-1:2004

01-november-2004

7 Yj b] bUj c] nUnj YnYž] hYgb] c n bUj c] È % XY . ? cb] b] ni bUb] bUj c] b
W] bXf] b] bcfUb] bUj c] È A YfYžtc`YfUbW] b`cnbU Yj UbY

Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation

Rohrgewinde für im Gewinde dichtende Verbindungen - Teil 1: Kegelige Außengewinde und zylindrische Innengewinde - Maße, Toleranzen und Bezeichnung

Filetage de tuyauterie pour raccordement avec étanchéité par le filetage - Partie 1: Filetages extérieurs coniques et filetages intérieurs cylindriques - Dimensions, tolérances et désignation

<https://standards.iteh.ai/catalog/standards/sist/50e6083f-0a95-44f1-b866-67098f088641/sist-en-10226-1-2004>

Ta slovenski standard je istoveten z: EN 10226-1:2004

ICS:

21.040.30 Posebni navoji Special screw threads

SIST EN 10226-1:2004 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 10226-1:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/50e6083f-0a95-44f1-b866-67098f088641/sist-en-10226-1-2004>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 10226-1

July 2004

ICS 21.040.30

English version

Pipe threads where pressure tight joints are made on the threads - Part 1: Taper external threads and parallel internal threads - Dimensions, tolerances and designation

Filetage de tuyauterie pour raccordement avec étanchéité par le filetage - Partie 1: Filetages extérieurs coniques et filetages intérieurs cylindriques - Dimensions, tolérances et désignation

Rohrgewinde für im Gewinde dichtende Verbindungen - Teil 1: Kegelige Außengewinde und zylindrische Innengewinde - Maße, Toleranzen und Bezeichnung

This European Standard was approved by CEN on 2 February 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.

<https://standards.cen.eu/catalog/standards/sist/50e6083f-0a95-44f1-b866-67098f088641/sist-en-10226-1-2004>



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

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

Contents

	page
Foreword.....	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Symbols and explanations	6
5 Dimensions.....	6
6 Designation	6
7 Thread design	8
7.1 Thread form	8
7.2 Thread lengths	10
8 Gauging	12
9 Combination with fastening thread.....	12
Bibliography	13

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 10226-1:2004

<https://standards.iteh.ai/catalog/standards/sist/50e6083f-0a95-44f1-b866-67098f088641/sist-en-10226-1-2004>

Foreword

This document (EN 10226-1:2004) has been prepared by Technical Committee ECISS/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 has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association.

This standard is based, with editorial modifications on ISO 7-1 "Pipe threads where pressure-tight joints are made on the threads - Part 1 : Dimensions, tolerances and designation". Pipe threads to this standard are dimensionally identical to and fully interchangeable with pipe threads to ISO 7-1.

This standard has been prepared in three parts. Parts 1 and 2 reflect the two thread jointing systems in regular use in Europe and Worldwide - Part 1 details taper external and parallel internal pipe threads, and Part 2 details taper external and taper internal pipe threads. Part 3 will provide requirements for the gauging of pipe threads conforming to Parts 1 and 2.

The common requirements for the taper external pipe thread are given in Part 1 and in Part 2, so as to present the complete thread jointing system in each part.

Components having pipe threads produced to the dimensions and tolerances given in this standard can be assembled to give safe and effective pressure tight joints providing proper assembly techniques are used. The techniques used to assemble threaded joints are dependent on a number of factors including the internal thread (parallel or taper), the quality of the mating threads, the materials of the components being connected, the thread sealant or jointing compound used and the assembly torque.

Because of the different assembly techniques used for the taper / parallel and taper / taper systems, it is recommended that mixing of components having parallel internal threads and taper internal threads is avoided in the same piping system.

Relevant EN product or application standards will normally specify whether parallel and /or taper internal threads are permitted for these products or applications. Users should select the internal thread type to suit their product or application requirements.

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.

EN 10226-1:2004 (E)

1 Scope

This part of EN 10226 specifies the requirements for thread form, dimensions, tolerances and designation for jointing pipe threads, sizes 1/16 to 6 inclusive, for joints made pressure-tight by the mating of the threads. These threads are taper external and parallel internal and are intended for use with pipes suitable for threading and for valves, fittings or other pipeline equipment interconnected by threaded joints.

An appropriate thread sealant or jointing compound should be used on the thread to ensure pressure-tight joints.

NOTE 1 Threaded joints using taper external threads and taper internal threads are detailed in prEN 10226-2

NOTE 2 The requirements for taper external threads are identical in EN 10226-1 and prEN 10226-2

NOTE 3 For pipe threads where pressure-tight joints are not made on the threads see EN ISO 228-1

NOTE 4 prEN 10226-3 gives details of recommended gauging systems for the verification of thread dimensions and thread form.

2 Normative references

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

prEN 10226-3, *Pipe threads where pressure-tight joints are made on the threads - Part 3: Verification by means of limit gauges.*

EN ISO 228-1, *Pipe threads where pressure-tight joints are not made on the threads - Part 1: Dimensions, tolerances and designation (ISO 228-1:2000)*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply (see also Figures 3 and 4)

NOTE For consistency and clarity, common terms and definitions have been adopted for EN 10226-1 and prEN 10226-2, consequently some definitions may include terms which seem inappropriate to this part.

3.1

gauge diameter

major diameter of the thread, whether external or internal, at the gauge plane.

3.2

major cone

imaginary cone which just touches the crests of a taper external thread or the roots of a taper internal thread.

3.3

gauge plane

plane, perpendicular to the axis of the taper thread, at which the major cone has the gauge diameter.

NOTE 1 For external threads the gauge plane is located at a distance equal to the gauge length from the small end of the thread.

NOTE 2 For parallel internal threads, theoretically there is no gauge plane because there is no major cone. However, the concept of a gauge plane is retained to assist with thread inspection and for this purpose the gauge plane is assumed to be located at a distance of half pitch behind the face of the threaded workpiece. This distance has been agreed in order to give consideration to the start of the thread that has been removed by chamfering.

3.4**gauge length**

on an external thread, the distance from the gauge plane to the small end of the thread.

3.5**reference plane**

visible surface of the internally and externally threaded parts, which facilitates the reading of the gauge when the thread is inspected.

For internal threads it is the face of the internally threaded part, for external threads it is the small end of the externally threaded part.

3.6**complete thread**

part of the thread which is fully formed at both crest and root.

NOTE When there is a chamfer at the start of the thread not exceeding one pitch in length, this is included in the length of the complete thread.

3.7**incomplete thread**

part of the thread which is fully formed at the root, but truncated at the crest by its intersection with the cylindrical surface of the product.

3.8**washout thread**

part of the thread which is not fully formed at the root.

NOTE The washout thread is produced by the bevel at the start of the threading tool.

3.9**useful thread**

complete thread plus incomplete thread, excluding the washout thread.

NOTE In practice, the total length of useful external thread may be longer than is necessary depending on the production techniques used for producing the threads and the external diameter of the workpiece. The provision of excessive lengths of useful external thread should be avoided.

3.10**assembly length**

useful thread length beyond the gauge plane of an external thread required to provide for assembly with an internal thread at the upper limit of the tolerance. It is inclusive of the wrenching length.

NOTE 1 See also 7.2.2

NOTE 2 This term is also known as "fitting allowance".

3.11**wrenching length**

useful thread length which is provided to accommodate the relative movement between the externally threaded part and the internally threaded part during the wrenching operation, following hand-tight engagement.

NOTE This term is also known as "wrenching allowance".

EN 10226-1:2004 (E)

3.12

accommodation length

distance on internally threaded workpieces, from the face of the workpiece to the first obstruction which the externally threaded workpiece will encounter on assembly.

4 Symbols and explanations

R	Designation of taper external thread.
Rp	Designation of parallel internal thread.
P	Pitch
H	Height of the triangle of the thread profile perpendicular to the thread axis.
h	$= 0,640\ 327P$; height of the thread profile between rounded crests and roots perpendicular to the thread axis
r	Radius of rounded crests and roots
D	Major diameter of the internal thread at the gauge plane (gauge diameter - see 3.1)
D_1	$= D - 1,280\ 654 P$; minor diameter of the internal thread at the gauge plane
D_2	$= D - 0,640\ 327 P$; pitch diameter of the internal thread at the gauge plane
d	Major diameter of the external thread at the gauge plane (gauge diameter - see 3.1)
d_1	$= d - 1,280\ 654 P$; minor diameter of the external thread at the gauge plane
d_2	$= d - 0,640\ 327 P$; pitch diameter of the external thread at the gauge plane
T_1	Tolerance on the gauge length of an external thread
T_2	Tolerance for the position of the gauge plane on an internal thread
L_a	Accommodation length (see 7.2.2)
L_i	Useful thread length for internally threaded workpieces (see 7.2.2)
L_e	Useful thread length for externally threaded workpieces (see 7.2.2)

5 Dimensions

Pipe thread dimensions are given in Table 1.

6 Designation

6.1 The designation of threads according to this part of EN 10226 shall consist of the following elements in the sequence given:

6.2 The description block shall be:

Pipe thread

6.3 The document number block shall be:

EN 10226

