ISO07

ADOPTION NOTICE

ISO07, "Pipe Threads Where Pressure-Tight Joints are Made on the Threads-Part 1: Designation, Dimensions and Tolerance Second Edition - and - Pipe Threads Where Pressure-Tight Joints are Made on the Threads - Part 2: Verification by Means of Limit Gauges First Edition," was adopted on October 3, 1994, for use by the Department of Defense (DoD). Proposed changes by DoD activities must be submitted to the DoD Adopting Activity: Commander, US Army Armament, Munitions and Chemical Command, US Army Armament Research, Development and Engineering Center, Attn: SMCAR-BAC-S, Picatinny Arsenal, NJ 07806-5000. DoD activities may obtain copies of this standard from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. The private sector and other Government agencies may purchase copies from the American National Standards Institute, 11 West 42nd Street, New York, NY 10036.

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INTERNATIONAL STANDARD

ISO 7-1

Third edition
1994-05-15

Pipe threads where pressure-tight joints are made on the threads —

Part 1:
Dimensions, tolerances and designation

Filetages de tuyauterie pour raccordement avec étanchéité dans le filet —

Partie 1: Dimensions, tolérances et désignation

Reference number
ISO 7-1:1994(E)

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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 7-1 was prepared by Technical Committee ISO/TC 5, *Ferrous metal pipes and metallic fittings*, Subcommittee SC 5, *Threaded or plain end butt-welding fittings, threads, gauging of threads.*

This third edition cancels and replaces the second edition (ISO 7-1:1982), which has been technically revised.

ISO 7 consists of the following parts, under the general title *Pipe threads where pressure-tight joints are made on the threads*:

— *Part 1: Dimensions, tolerances and designation*

— *Part 2: Verification by means of limit gauges*

Annex A of this part of ISO 7 is for information only.

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Pipe threads where pressure-tight joints are made on the threads —

Part 1:
Dimensions, tolerances and designation

1 Scope

This part of ISO 7 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, parallel internal or taper 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 jointing medium should be used on the thread to ensure pressure-tight joints.

NOTES

1 Parallel external pipe threads are not suitable as jointing threads.

2 For pipe threads where pressure-tight joints are not made on the threads, see ISO 228-1.

3 ISO 7-2 gives details of methods of verification of jointing thread dimensions and form and recommended gauging systems.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 7. 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 7 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 7-2:1982, *Pipe threads where pressure-tight joints are made on the threads — Part 2: Verification by means of limit gauges.*

3 Definitions

For the purposes of this part of ISO 7, the following definitions apply (see also figures 3 and 5).

3.1 gauge diameter: Major diameter of the thread, whether external or internal.

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 4 For external threads the gauge plane is located at a distance equal to the nominal gauge length from the small end of the thread. For internal threads the gauge plane is located at a distance of half-pitch behind the face of the threaded part. This is 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 each of the internally and externally threaded parts, which facili-

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