



SLOVENSKI STANDARD SIST EN ISO 17292:2004

01-november-2004

Kovinski krogelni ventili za naftno industrijo, petrokemijo in podobno industrijo (ISO 17292:2004)

Metal ball valves for petroleum, petrochemical and allied industries (ISO 17292:2004)

Kugelhähne aus Metall für Erdöl-, petrochemische und verwandte Industrien (ISO 17292:2004)

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Robinets a tournant sphérique pour les industries du pétrole, de la pétrochimie et les industries connexes (ISO 17292:2004)

SIST EN ISO 17292:2004

Ta slovenski standard je istoveten z: EN ISO 17292:2004

ICS:

23.060.20	Zapirni ventili (kroglasti in pipe)	Ball and plug valves
75.180.01	Oprema za industrijo nafte in zemeljskega plina na splošno	Equipment for petroleum and natural gas industries in general

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 17292

August 2004

ICS 75.200; 23.060.20

English version

Metal ball valves for petroleum, petrochemical and allied industries (ISO 17292:2004)

Robinets à tournant sphérique pour les industries du pétrole, de la pétrochimie et les industries connexes (ISO 17292:2004)

This European Standard was approved by CEN on 22 July 2004.

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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.

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

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

EN ISO 17292:2004 (E)**Foreword**

This document (EN ISO 17292:2004) has been prepared by Technical Committee ISO/TC 153 "Valves" in collaboration with Technical Committee CEN/TC 69 "Industrial valves", the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

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.

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INTERNATIONAL STANDARD

**ISO
17292**

First edition
2004-08-01

Metal ball valves for petroleum, petrochemical and allied industries

*Robinets à tournant sphérique pour les industries du pétrole, de la
pétrochimie et les industries connexes*

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Reference number
ISO 17292:2004(E)

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Published in Switzerland

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. 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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 17292 was prepared by Technical Committee ISO/TC 153, *Valves*, Subcommittee SC 1, *Design, manufacture, marking and testing* in collaboration with Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

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Introduction

The purpose of this International Standard is the establishment, in ISO format, of basic requirements and practices for flanged, butt-welding, socket welding, and threaded end steel ball valves having flow passageways identified as full bore, reduced bore, and double reduced bore seat openings suitable for petroleum, petrochemical and allied industries applications that parallel those given in American Petroleum Institute Standard API 608.

It is not the purpose of this International Standard to replace ISO 7121 or any other International Standard that is not identified with petroleum refinery, petrochemical or natural gas industry applications.

In this International Standard, flanged end Class-designated valves have flanges in accordance with ASME B16.5. Flanged end PN-designated valves have flanges in accordance with EN 1092-1. Valves with ends threaded may have threads to either ISO 7-1 or ASME B1.20.1.

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Metal ball valves for petroleum, petrochemical and allied industries

1 Scope

This International Standard specifies the requirements for a series of metal ball valves suitable for petroleum, petrochemical, natural gas plants, and related industrial applications.

It covers valves of the nominal sizes DN

— 8; 10; 15; 20; 25; 32; 40; 50; 65; 80; 100; 150; 200; 250; 300; 350; 400; 450; 500

corresponding to nominal pipe sizes NPS

— $\frac{1}{4}$; $\frac{3}{8}$; $\frac{1}{2}$; $\frac{3}{4}$; 1; $1\frac{1}{4}$; $1\frac{1}{2}$; 2; $2\frac{1}{2}$; 3; 4; 6; 8; 10; 12; 14; 16; 18; 20;

and applies for pressure designations

— Class 150; 300; 600; 800 (Class 800 applies only for valves with reduced bore and with threaded and socket welding end);

— PN 16; 25; 40. <https://standards.iteh.ai/catalog/standards/sist/671828e7-ff63-4700-b3ac-c7f194ebc67e/sist-en-iso-17292-2004>

It includes provisions for testing and inspection and for valve characteristics as follows:

- flanged and butt-welded ends, in sizes $15 \leq DN \leq 500$ ($\frac{1}{2} \leq NPS \leq 20$);
- socket welding and threaded ends, in sizes $8 \leq DN \leq 50$ ($\frac{1}{4} \leq NPS \leq 2$);
- body seat openings designated as full bore, reduced bore and double reduced bore;
- materials.

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.

ISO 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 7-2, *Pipe threads where pressure-tight joints are made on the threads — Part 2: Verification by means of limit gauges*

ISO 261, *ISO general-purpose metric screw threads — General plan*

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ISO 965-2, *ISO general purpose metric screw threads — Tolerances — Part 2: Limits of sizes for general purpose external and internal screw threads — Medium quality*

ISO 4032, *Hexagon nuts, style 1 — Product grades A and B*

ISO 4033, *Hexagon nuts, style 2 — Product grades A and B*

ISO 4034, *Hexagon nuts — Product grade C*

ISO 5208, *Industrial valves — Pressure testing of valves*

ISO 5209, *General purpose industrial valves — Marking*

ISO 5752, *Metal valves for use in flanged pipe systems — Face-to-face and centre-to-face dimensions*

ISO 6708:1995, *Pipework components — Definition and selection of DN (nominal size)*

ISO 9606-1, *Approval testing of welders — Fusion welding — Part 1: Steels*

ISO 10497, *Testing of valves — Fire type-testing requirements*

ISO 15607, *Specification and qualification of welding procedures for metallic materials — General rules*

ISO 15609-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure specification — Part 1: Arc welding¹⁾*

ISO 15610, *Specification and qualification of welding procedures for metallic materials — Qualification based on tested welding consumables*

ISO 15614-1, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 1: Arc and gas welding of steels and arc welding of nickel and nickel alloys*

ISO 15614-2, *Specification and qualification of welding procedures for metallic materials — Welding procedure test — Part 2: Arc welding of aluminium and its alloys²⁾*

EN 1092-1, *Flanges and their joints — Circular flanges for pipes, valves, fittings and accessories, PN-designated — Part 1: Steel flanges*

EN 1333, *Pipework components — Definition and selection of PN*

EN 10269, *Steels and nickel alloys for fasteners with specified elevated and/or low temperature properties*

EN 12982, *Industrial valves — End-to-end and centre-to-end dimensions for butt welding end valves*

ASME B1.1, *Unified inch screw threads, UN and UNR thread form*

ASME B1.20.1, *Pipe threads, general purpose, inch*

ASME B16.5, *Pipe flanges and flanged fittings*

ASME B16.10, *Face to face and end to end dimensions of valves*

ASME B16.20, *Metallic gaskets for pipe flanges: Ring joint spiral wound and jacketed*

1) To be published. (Replaces ISO 9956-2:1995)

2) To be published. (Replaces ISO 9956-4:1995)