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STANDARD

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**Petroleum and natural gas industries —  
Design and installation of piping systems  
on offshore production platforms**

*Industries du pétrole et du gaz naturel — Conception et installation de  
systèmes de tuyauterie sur les plates-formes de production en mer*



Reference number  
ISO 13703:2000(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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 3.

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 International Standard may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

International Standard ISO 13703 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum and natural gas industries*, Subcommittee SC 6, *Processing equipment and systems*.

Annexes A, B and C of this International Standard are for information only.

## Introduction

This International Standard is based on API RP 14E, 5<sup>th</sup> edition, October 1991.

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# Petroleum and natural gas industries — Design and installation of piping systems on offshore production platforms

## 1 Scope

This International Standard specifies minimum requirements and gives guidance for the design and installation of new piping systems on production platforms located offshore for the petroleum and natural gas industries. It covers piping systems up to 69 000 kPa (ga) maximum, within temperature range limits for the materials meeting the requirements of ASME B31.3.

NOTE For applications outside these pressure and temperature ranges, this International Standard may be used but special consideration should be given to material properties.

Annex A gives some worked examples for solving piping design problems.

## 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 13623, *Petroleum and natural gas industries — Pipeline transportation systems*.

API RP 520-2<sup>1)</sup>, *Recommended practice for design and installation of pressure-relieving systems in refineries — Part 2*.

ASME<sup>2)</sup>, *Boiler and pressure vessel code: Section VIII: Pressure vessels, Division 1*.

ASME B 31.3, *Process piping*.

NACE MR0175<sup>3)</sup>, *Sulfide stress cracking resistant metallic materials for oil field equipment*.

NACE TM0177, *Laboratory testing of metals for resistance to specific forms of environmental cracking in H<sub>2</sub>S environments*.

NACE TM0284, *Evaluation of pipeline and pressure vessel steels for resistance to hydrogen-induced cracking*.

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2) American Society of Mechanical Engineers, 345 East 47<sup>th</sup> Street, New York, N.Y. 10017, U.S.A.

3) National Association of Corrosion Engineers, P.O. Box 218340, Houston, Texas 77218-8340, U.S.A.