
Petroleum and natural gas industries - Drilling and production equipment - Marine drilling riser couplings (ISO 13625:2002)

Petroleum and natural gas industries - Drilling and production equipment - Marine drilling riser couplings (ISO 13625:2002)

Erdöl-, und Erdgasindustrie - Bohr- und Förderanlagen - Auslegung, Leistungseinstufung und Prüfung von Kupplungen für Bohrförderanlagen auf See (ISO 13625:2002)

Industries du pétrole et du gaz naturel - Equipement de forage et de production - Connecteurs de tubes prolongateurs pour forages en mer (ISO 13625:2002)

[https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

[9714-9b642b466398/sist-en-iso-13625-2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

Ta slovenski standard je istoveten z: EN ISO 13625:2002

ICS:

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
-----------	---------------------------------------	--------------------------------------

SIST EN ISO 13625:2004

en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 13625:2004

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 13625

December 2002

ICS 75.180.10

English version

Petroleum and natural gas industries - Drilling and production equipment - Marine drilling riser couplings (ISO 13625:2002)

Industries du pétrole et du gaz naturel - Equipement de forage et de production - Connecteurs de tubes prolongateurs pour forages en mer (ISO 13625:2002)

This European Standard was approved by CEN on 27 November 2002.

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.

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 Management Centre has the same status as the official versions.

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

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>



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

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

EN ISO 13625:2002 (E)**Foreword**

This document (EN ISO 13625:2002) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum and natural gas industries" in collaboration with Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum and natural gas industries", 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 June 2003, and conflicting national standards shall be withdrawn at the latest by June 2003.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

NOTE FROM CMC The foreword is susceptible to be amended on reception of the German language version. The confirmed or amended foreword, and when appropriate, the normative annex ZA for the references to international publications with their relevant European publications will be circulated with the German version.

iTeh STANDARD PREVIEW
Endorsement notice
(standards.iteh.ai)

The text of ISO 13625:2002 has been approved by CEN as EN ISO 13625:2002 without any modifications.

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

INTERNATIONAL STANDARD

ISO
13625

First edition
2002-12-01

Corrected version
2003-06-15

Petroleum and natural gas industries — Drilling and production equipment — Marine drilling riser couplings

*Industries du pétrole et du gaz naturel — Équipement de forage et de
production — Connecteurs de tubes prolongateurs pour forages en mer*

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

[https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-
9714-9b642b466398/sist-en-iso-13625-2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)



Reference number
ISO 13625:2002(E)

© ISO 2002

ISO 13625:2002(E)**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing the editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The ISO Central Secretariat accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

Details of the software products used to create this PDF file can be found in the General Info relative to the file; the PDF-creation parameters were optimized for printing. Every care has been taken to ensure that the file is suitable for use by ISO member bodies. In the unlikely event that a problem relating to it is found, please inform the Central Secretariat at the address given below.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

© ISO 2002

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword.....	iv
Introduction	v
1 Scope.....	1
2 Normative references	1
3 Terms, definitions and abbreviations	2
3.1 Terms and definitions.....	2
3.2 Abbreviations	4
4 Design	4
4.1 Service classifications.....	4
4.2 Riser loading	5
4.3 Determination of stresses by analysis	5
4.4 Stress distribution verification test.....	6
4.5 Coupling design load.....	6
4.6 Design for static loading	7
4.7 Stress amplification factor	7
4.8 Design documentation	8
5 Material selection and welding.....	8
5.1 Material selection	8
5.2 Welding	10
6 Dimensions and weights	11
6.1 Coupling dimensions.....	11
6.2 Coupling weight	12
7 Quality control.....	12
7.1 General	12
7.2 Raw material conformance	12
7.3 Manufacturing conformance.....	12
8 Testing.....	16
8.1 Purpose	16
8.2 Design qualification tests	16
9 Marking	16
9.1 Stamping.....	16
9.2 Required information.....	16
10 Operation and maintenance manuals	17
10.1 General	17
10.2 Equipment description	17
10.3 Guidelines for coupling usage	17
10.4 Maintenance instructions.....	17
Annex A (informative) Stress analysis	18
Annex B (informative) Optional qualification tests	19
Annex C (normative) Design for static loading	20
Bibliography	25

ISO 13625:2002(E)

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 13625 was prepared by Technical Committee ISO/TC 67, *Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries*, Subcommittee SC 4, *Drilling and production equipment*.

This corrected version of ISO 13625:2002 incorporates correction of the French title.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

Introduction

This International Standard is based upon API¹⁾ Specification 16R, first edition, January 1997^[1].

Users of this International Standard should be aware that further or differing requirements could be needed for individual applications. This International Standard is not intended to inhibit a vendor from offering, or the purchaser from accepting, alternative equipment or engineering solutions for the individual application. This can be particularly applicable where there is innovative or developing technology. Where an alternative is offered, the vendor will need to identify any variations from this International Standard and provide details.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[SIST EN ISO 13625:2004](https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

1) American Petroleum Institute, 1220 L Street NW, Washington D.C. 20005, USA.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN ISO 13625:2004](#)

<https://standards.iteh.ai/catalog/standards/sist/b63c978d-5308-4596-9714-9b642b466398/sist-en-iso-13625-2004>

Petroleum and natural gas industries — Drilling and production equipment — Marine drilling riser couplings

1 Scope

This International Standard specifies requirements and gives recommendations for the design, rating, manufacturing and testing of marine drilling riser couplings. Coupling capacity ratings are established to enable the grouping of coupling models according to their maximum stresses developed under specific levels of loading, regardless of manufacturer or method of make-up. This International Standard relates directly to API RP 16Q, which provides guidelines for the design, selection, and operation of the marine drilling riser system as a whole.

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 148, *Steel — Charpy impact test (V-notch)*

ISO 6506-1, *Metallic materials — Brinell hardness test — Part 1: Test method*

ISO 6507-1, *Metallic materials — Vickers hardness test — Part 1: Test method*

ISO 6508-1, *Metallic materials — Rockwell hardness test — Part 1: Test method (scales A, B, C, D, E, F, G, H, K, N, T)*

ISO 6892, *Metallic materials — Tensile testing at ambient temperature*

ISO 10423:2001, *Petroleum and natural gas industries — Drilling and production equipment — Wellhead and christmas tree equipment*

ASME ²⁾, *Boiler and Pressure Vessel Code, Section V*

ASME, *Boiler and Pressure Vessel Code, Section VIII*

ASTM ³⁾ E 94, *Standard Guide for Radiographic Examination*

ASTM E 165, *Standard Test Method for Liquid Penetrant Examination*

ASTM E 709, *Standard Guide for Magnetic Particle Examination*

ASTM E 747, *Standard Practice for Design, Manufacture and Material Grouping Classification of Wire Image Quality Indicators (IQI) Used for Radiology*

2) American Society of Mechanical Engineers, 1950 Stemmons Freeway, Dallas, Texas 75207, USA.

3) American Society of Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103-1187, USA.

ISO 13625:2002(E)

3 Terms, definitions and abbreviations

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE A comprehensive list of definitions pertaining to marine drilling riser systems is contained in API RP 16Q^[2].

3.1.1

auxiliary line

external conduit (excluding choke and kill lines) arranged parallel to the riser main tube for enabling fluid flow

EXAMPLE Control system fluid line, buoyancy control line, mud boost line.

3.1.2

breech-block coupling

coupling which is engaged by partial rotation of one member into an interlock with another

3.1.3

buoyancy

devices added to the riser joints to reduce their submerged weight

3.1.4

choke and kill lines

C&K lines

external conduits, arranged parallel to the main tube, used for circulation of fluids to control well pressure

NOTE Choke and kill lines are primary pressure-containing members.

3.1.5

collet-type coupling

coupling having a slotted cylindrical element joint mating coupling members

3.1.6

dog-type coupling

coupling having dogs which act as wedges mechanically driven between the box and pin for engagement

3.1.7

flange-type coupling

coupling having two flanges joined by bolts

3.1.8

indication

visual sign of cracks, pits, or other abnormalities found during liquid penetrant and magnetic particle examination

3.1.8.1

linear indication

indication in which the length is equal to or greater than three times its width

3.1.8.2

relevant indication

any indication with a major dimension over 1,6 mm (1/16 in)

3.1.8.3

rounded indication

indication that is circular or elliptical with its length less than three times the width