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Irish Standard I.S. EN 13942:2009

Petroleum and natural gas industries -Pipeline transportation systems -Pipeline valves (ISO 14313:2007 modified)

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Incorporating amendments/corrigenda issued since publication: EN 13942:2009/AC:2009

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# EUROPEAN STANDARD

# EN 13942:2009/AC

# NORME EUROPÉENNE

# EUROPÄISCHE NORM

May 2009 Mai 2009 Mai 2009

ICS 23.040.01; 75.200

English version Version Française Deutsche Fassung

Petroleum and natural gas industries - Pipeline transportation systems -Pipeline valves (ISO 14313:2007 modified/Cor 1:2009)

Industries du pétrole et du gaz naturel -Systèmes de transport par conduites -Robinets de conduites (ISO 14313:2007 modifiée/Cor 1:2009) Erdöl- und Erdgasindustrie -Rohrleitungstransportsysteme -Rohrleitungsarmaturen (ISO 14313:2007, modifiziert/Cor 1:2009)

This corrigendum becomes effective on 13 May 2009 for incorporation in the three official language versions of the EN.

Ce corrigendum prendra effet le 13 mai 2009 pour incorporation dans les trois versions linguistiques officielles de la EN.

Die Berichtigung tritt am 13.Mai 2009 zur Einarbeitung in die drei offiziellen Sprachfassungen der EN in Kraft.



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

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### EN ISO 13942:2009/AC:2009 (E)

ISO published a technical corrigendum for ISO 14313:2007. This impacts the EN 13942:2009 which is a modified version of the ISO 14313:2007. Therefore take into account the following corrections in the EN 13942:2009.

Page 6, Clause 3

Replace the following normative references:

"ASME B16.5-1996, *Pipe Flanges and Flanged Fittings: NPS 1/2 through 24*" with "ASME B16.5-2003, *Pipe Flanges and Flanged Fitting : NPS 1/2 through 24*";

"ASME B31.8-2003, Gas Transmission and Distribution Piping Systems" with "ASME B31.8-2007, Gas Transmission and Distribution Piping Systems";

"ASME Boiler and Pressure Vessel Code — Section VIII: *Rules for Construction of Pressure Vessels* Division 2: *Alternative Rules*" *with* "ASME Boiler and Pressure Vessel Code — Section VIII: *Rules for Construction of Pressure Vessels* — Division 2-2004: *Alternative Rules*".

Page 38, Table 4, under subheading "PN 50 (class 300)", line for "DN 150 (NPS 6)"

Replace the value of "457" in the column "Raised face (*A*)" with "403" such that the line reads:

150 6 403 457 419 — — — —
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Page 40, Table 4, under subheading "PN 420 (class 2500)", line for "DN 65 (NPS 2-1/2)"

Replace the value of "540" in the column "Ring joint" with "514" such that the line reads:

65	2-1/2	508	508	514

Page 45, 7.7.2

Replace "ASME B31.8-2003" with "ASME B31.8-2007".

Replace "Figure 14 and 15" with "Figures I4 and I5".

#### Page 49, 7.20.2, second sentence

*Replace* "ASME Code Section VIII, Division 2, Part AD-132" *with* "ASME Code Section VIII, Division 2-2004, Part AD-132".

Page 53, 9.3

Delete the words "by agreement" from the NOTE.

Page 53, 9.4, second paragraph, second sentence

Add "pipe pups to valve" after "Repairs of fabrication welds".

Page 67, B.3.3

Replace "0,55 MPa  $\pm$  00,7 MPa" with "0,55 MPa  $\pm$  0,07 MPa".

Page 75, Table D.1, beginning of last box

Replace "Other requirements" with "Other requirements".

Page 75, Table D.1, after "ISO 15156 (all parts)? Yes \_\_\_\_\_ No \_\_\_\_\_", add the following line

"If yes, specify % mass fraction of  $H_2S$  \_\_\_; pH \_\_\_; % mass fraction of chlorides \_\_\_; temperature \_\_\_".

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Údarás um Chaighdeáin Náisiúnta na hÉireann						

# EUROPEAN STANDARD NORME EUROPÉENNE

# EN 13942

# **EUROPÄISCHE NORM**

January 2009

ICS 23.040.01; 75.200

Supersedes EN 13942:2003

**English Version** 

# Petroleum and natural gas industries - Pipeline transportation systems - Pipeline valves (ISO 14313:2007 modified)

Industries du pétrole et du gaz naturel - Systèmes de transport par conduites - Robinets de conduites (ISO 14313:2007 modifiée) Erdöl- und Erdgasindustrie - Rohrleitungstransportsysteme - Rohrleitungsarmaturen (ISO 14313:2007, modifiziert)

This European Standard was approved by CEN on 27 December 2008.

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

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Ref. No. EN 13942:2009: E

EN 13942:2009 (E)

# Contents

## Foreword

This document (EN 13942:2009) has been prepared by Technical Committee CEN/TC 12 "Materials, equipment and offshore structures for petroleum, petrochemical 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 July 2009, and conflicting national standards shall be withdrawn at the latest by July 2009.

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

This document supersedes EN 13942:2003.

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

EN 13942:2009 (E)

## Introduction

This International Standard is the result of harmonizing the requirements of ISO 14313:1999 and API Spec 6D-2002<sup>[5]</sup>.

The revision of ISO 14313 is developed based on input from both ISO/TC67/SC2 WG2 and API 6D TG technical experts. The technical revisions have been made In order to accommodate the needs of industry and to move this International Standard to a higher level of service to the petroleum and natural gas industry.

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

ISO 14313:2007, developed within ISO/TC 67 SC 2, has been adopted as EN 13942:2009 (ISO 14313:2007 modified).

The scope of ISO/TC 67/SC 2 is pipeline transportation systems for the petroleum and natural gas industries without exclusions. However in CEN, the scopes of CEN/TC 12 and CEN/TC 234 overlapped until 1995. This scope overlap caused problems for the parallel procedure for the above-mentioned items. The conflict in scope was resolved when both the CEN/Technical Committees and the CEN/BT took the following resolution:

Resolution BT 38/1995:

Subject: Revised scope of CEN/TC 12

"BT endorses the conclusions of the coordination meeting between CEN/TC 12 "Materials, equipment and offshore structures for petroleum and natural gas industries" and CEN/TC 234 "Gas supply" and modifies the CEN/TC 12 scope, to read:

"Standardization of the materials, equipment and offshore structures used in drilling, production, refining and the transport by pipelines of petroleum and natural gas, excluding on-land supply systems used by the gas supply industry and those aspects of offshore structures covered by IMO requirement (ISO/TC 8).

The standardization is to be achieved wherever possible by the adoption of ISO Standards."

Resulting from Resolution BT 38/1995, "gas supply on land" has been excluded from the scope of ISO 14313:2007 for the European adoption by CEN/TC 12.

## 1 Scope

This International Standard specifies requirements and provides recommendations for the design, manufacturing, testing and documentation of ball, check, gate and plug valves for application in pipeline systems meeting the requirements of ISO 13623 for the petroleum and natural gas industries.

This International Standard is not applicable to subsea pipeline valves, as they are covered by a separate International Standard (ISO 14723).

This International Standard is not applicable to valves for pressure ratings exceeding PN 420 (Class 2 500).

On-land supply systems used by the gas supply industry are excluded from the scope of this standard.

## 2 Conformance

### 2.1 Units of measurement

In this International Standard, data are expressed in both SI units and USC units. For a specific order item, unless otherwise stated, only one system of units shall be used, without combining data expressed in the other system.

For data expressed in SI units, a comma is used as the decimal separator and a space is used as the thousands separator. For data expressed in USC units, a dot (on the line) is used as the decimal separator and a comma is used as the thousands separator.

### 2.2 Rounding

Except as otherwise required by this International Standard, to determine conformance with the specified requirements, observed or calculated values shall be rounded to the nearest unit in the last right-hand place of figures used in expressing the limiting value, in accordance with the rounding method of ISO 31-0:1992, Annex B, Rule A.

### 2.3 Compliance to standard

A quality system should be applied to assist compliance with the requirements of this International Standard.

NOTE ISO/TS 29001 gives sector-specific guidance on quality management systems.

The manufacturer shall be responsible for complying with all of the applicable requirements of this International Standard. It shall be permissible for the purchaser to make any investigation necessary in order to be assured of compliance by the manufacturer and to reject any material that does not comply.

## **3** 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.

EN 287-1, Qualification test of welders — Fusion welding — Part 1: Steels

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

EN 10204, Metallic products — Type of inspection documents



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