



SLOVENSKI STANDARD
SIST EN ISO 13628-1:2025

01-april-2025

Naftna in plinska industrija, vključno z nizkoogljično energijo - Načrtovanje in upravljanje proizvodnje v podmorskih sistemih - 1. del: Splošne zahteve in priporočila (ISO 13628-1:2025)

Oil and gas industries including low carbon energy - Design and operation of subsea production systems - Part 1: General requirements and recommendations (ISO 13628-1:2025)

Öl- und Gasindustrie einschließlich kohlenstoffarmer Energieträger - Auslegung und Betrieb von Unterwasser-Fördersystemen - Teil 1: Allgemeine Anforderungen und Empfehlungen (ISO 13628-1:2025)

Industries du pétrole et du gaz, y compris les énergies à faible teneur en carbone - Conception et exploitation des systèmes de production immergés - Partie 1: Exigences générales et recommandations (ISO 13628-1:2025)

<https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4e2-811a-a949de9e1781/sist-en-iso-13628-1-2025>

Ta slovenski standard je istoveten z: EN ISO 13628-1:2025

ICS:

75.180.10	Oprema za raziskovanje, vrtanje in odkopavanje	Exploratory, drilling and extraction equipment
-----------	--	--

SIST EN ISO 13628-1:2025

en,fr,de

EUROPEAN STANDARD

EN ISO 13628-1

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2025

ICS 75.180.10

Supersedes EN ISO 13628-1:2005, EN ISO 13628-1:2005/A1:2010

English Version

Oil and gas industries including low carbon energy -
Design and operation of subsea production systems - Part
1: General requirements and recommendations (ISO
13628-1:2025)

Industries du pétrole et du gaz, y compris les énergies
à faible teneur en carbone - Conception et exploitation
des systèmes de production immergés - Partie 1:
Exigences générales et recommandations (ISO 13628-
1:2025)

Öl- und Gasindustrie einschließlich kohlenstoffarmer
Energieträger - Auslegung und Betrieb von
Unterwasser-Fördersystemen - Teil 1: Allgemeine
Anforderungen und Empfehlungen (ISO 13628-
1:2025)

This European Standard was approved by CEN on 29 March 2024.

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 CEN-CENELEC 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

EN ISO 13628-1:2025 (E)

Contents	Page
European foreword.....	3

iTeh Standards
(<https://standards.itih.ai>)
Document Preview

[SIST EN ISO 13628-1:2025](https://standards.itih.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025)

<https://standards.itih.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025>

European foreword

This document (EN ISO 13628-1:2025) has been prepared by Technical Committee ISO/TC 67 "Oil and gas industries including lower carbon energy" in collaboration with Technical Committee CEN/TC 12 "Oil and gas industries including lower carbon energy" the secretariat of which is held by NEN.

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 August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.

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

This document supersedes EN ISO 13628-1:2005, EN ISO 13628-1:2005/A1:2010.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

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, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

(<https://standards.iteh.ai>)

Endorsement notice

The text of ISO 13628-1:2025 has been approved by CEN as EN ISO 13628-1:2025 without any modification.

[SIST EN ISO 13628-1:2025](https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025)

<https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025>



**International
Standard**

ISO 13628-1

**Oil and gas industries including
low carbon energy — Design and
operation of subsea production
systems —**

**Part 1:
General requirements and
recommendations**

*Industries du pétrole et du gaz, y compris les énergies à faible
teneur en carbone — Conception et exploitation des systèmes de
production immergés —*

Partie 1: Exigences générales et recommandations

**Third edition
2025-01**

iTeh Standards

(<https://standards.itih.ai>)

Document Preview

ISO 13628-1:2025(en)

iTeh Standards (<https://standards.iteh.ai>) Document Preview

[SIST EN ISO 13628-1:2025](https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025)

<https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

ISO 13628-1:2025(en)

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms, definitions and abbreviated terms	1
3.1 Terms and definitions.....	1
3.2 Abbreviated terms.....	3
4 Subsea production system	4
4.1 General.....	4
4.2 System configuration.....	4
4.3 Overview of API 17 series documents by categories.....	5
4.3.1 System level documents.....	5
4.3.2 Subsea hardware (wellheads, trees, manifolds, structures, connectors, and pumps).....	6
4.3.3 Flowlines and risers.....	7
4.3.4 Control systems.....	7
4.3.5 Intervention systems.....	8
5 Systems engineering	8
5.1 General.....	8
5.2 Systems engineering process.....	9
5.3 Subsea system production assurance and reliability management.....	10
6 Equipment design requirements	11
6.1 Design basis.....	11
6.2 Safety.....	11
6.2.1 General.....	11
6.2.2 Safety strategy.....	12
6.2.3 Safety by design.....	12
6.3 Barrier and isolation considerations.....	12
6.3.1 Barrier philosophy.....	12
6.3.2 Barrier requirements.....	14
6.3.3 Subsea isolation philosophy.....	14
6.4 Materials.....	15
6.5 Structural analysis.....	16
6.5.1 General.....	16
6.5.2 Wellhead, tree, and C/WO riser system analysis.....	16
6.6 Pumps, piping, and valves.....	16
6.7 Dropped objects and fishing gear loads.....	17
6.8 Lifting components, padeyes, and unpressurized structural components.....	17
6.9 Colours and marking.....	17
6.10 Tolerance evaluation.....	17
6.11 Design for installation.....	18
6.12 Environmental considerations.....	18
6.13 Evaluation of subsea pressure testing limitations.....	18
6.14 Design for intervention.....	19
7 Technology management guidance	19
7.1 Technology development and qualification.....	19
7.2 Obsolescence management.....	20
8 Manufacture, assembly, testing, installation, and commissioning guidance	21
8.1 Manufacture.....	21
8.2 Assembly.....	21
8.3 Testing.....	21
8.3.1 General.....	21

ISO 13628-1:2025(en)

8.3.2	Inspection and test plans.....	22
8.4	Transportation, preservation, and storage.....	22
8.5	Load-out and installation.....	23
8.6	Commissioning/systems completion.....	24
9	Operations guidance.....	24
9.1	Integrity management.....	24
9.1.1	Condition monitoring.....	24
9.1.2	Reliability data collection/reporting.....	25
9.1.3	Subsea production system maintenance.....	25
9.2	Production management.....	25
10	Well intervention guidance.....	26
11	Decommissioning guidance.....	26
Annex A (informative) Systems engineering processes.....		28
Bibliography.....		29

iTech Standards
 (https://standards.iteh.ai)
 Document Preview

[SIST EN ISO 13628-1:2025](https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025)

<https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025>

ISO 13628-1:2025(en)

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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 67, *Oil and gas industries including lower carbon energy*, Subcommittee SC 4, *Drilling, production and injection equipment*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 12, *Oil and gas industries including lower carbon energy*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This third edition cancels and replaces the second edition (ISO 13628-1:2005), which has been technically revised. It also incorporates the Amendment ISO 13628-1:2005/Amd 1:2010. <http://e9e1781/sist-en-iso-13628-1-2025>

The main changes are as follows:

- ISO 13628-1 has been fully re-written compared to the 2005 edition of the document;
- ISO 13628-1 has been aligned with API RP 17A and is now a technically equivalent document.

A list of all parts in the ISO 13628 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

ISO 13628-1:2025(en)**Introduction**

This document has been prepared to provide general requirements and recommendations for the user to the various areas requiring consideration during development of a subsea production system for the petroleum and natural gas industries. The requirements and guidance in this document are intended to complement engineering judgement and facilitate the decision process.

iTeh Standards
(<https://standards.iteh.ai>)
Document Preview

[SIST EN ISO 13628-1:2025](https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025)

<https://standards.iteh.ai/catalog/standards/sist/bc478d75-445f-4fe2-811a-a949de9e1781/sist-en-iso-13628-1-2025>