

**SLOVENSKI STANDARD**  
**oSIST prEN ISO 13628-17:2010**  
**01-junij-2010**

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**Industrija za predelavo nafte in zemeljskega plina - Načrtovanje in delovanje podvodnih proizvodnih sistemov - 17. del: Smernice za pomožno opremo iz gibkih cevni sistemov (ISO/DIS 13628-17:2010)**

Petroleum and natural gas industries - Design and operation of subsea production systems - Part 17: Guidelines for flexible pipe ancillary equipment (ISO/DIS 13628-17:2010)

Erdöl-, Petrochemische und Erdgasindustrie - Praxisempfehlungen für Zusatzausrüstungen von flexiblen Rohrleitungssystemen (ISO/DIS 13628-17:2010)

Industries du pétrole et du gaz naturel - Conception et exploitation des systèmes de production immergés - Partie 17: Lignes directrices pour accessoires de canalisations flexibles (ISO/DIS 13628-17:2010)

**Ta slovenski standard je istoveten z: prEN ISO 13628-17**

**ICS:**

75.180.10	Oprema za raziskovanje in odkopavanje	Exploratory and extraction equipment
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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**DRAFT**  
**prEN ISO 13628-17**

April 2010

ICS 75.180.10

English Version

**Petroleum and natural gas industries - Design and operation of  
subsea production systems - Part 17: Guidelines for flexible pipe  
ancillary equipment (ISO/DIS 13628-17:2010)**

Industries du pétrole et du gaz naturel - Conception et  
exploitation des systèmes de production immergés - Partie  
17: Lignes directrices pour accessoires de canalisations  
flexibles (ISO/DIS 13628-17:2010)

Erdöl-, Petrochemische und Erdgasindustrie -  
Praxisempfehlungen für Zusatzausrüstungen von flexiblen  
Rohrleitungssystemen (ISO/DIS 13628-17:2010)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/TC 12.

If this draft becomes a European Standard, 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.

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## Foreword

This document (prEN ISO 13628-17:2010) has been prepared by Technical Committee ISO/TC 67 "Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries" in collaboration with 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 document is currently submitted to the parallel Enquiry.

### Endorsement notice

The text of ISO/DIS 13628-17:2010 has been approved by CEN as a prEN ISO 13628-17:2010 without any modification.

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# DRAFT INTERNATIONAL STANDARD ISO/DIS 13628-17

ISO/TC 67/SC 4

Secretariat: ANSI

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## Petroleum and natural gas industries — Design and operation of subsea production systems —

Part 17:

### Guidelines for flexible pipe ancillary equipment

*Industries du pétrole et du gaz naturel — Conception et exploitation des systèmes de production immergés —*

*Partie 17: Lignes directrices pour accessoires de canalisations flexibles*

ICS 75.180.10

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### ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

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## ISO/DIS 13628-17

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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 13628-17 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*.

ISO 13628 consists of the following parts under the general title *Petroleum and natural gas industries — Design and operation of subsea production systems*:

- Part 1: *General requirements and recommendations*
- Part 2: *Unbonded flexible pipe systems for subsea and marine applications*
- Part 3: *Through flowline (TFL) systems*
- Part 4: *Subsea wellhead and tree equipment*
- Part 5: *Subsea umbilicals*
- Part 6: *Subsea production control systems*
- Part 7: *Completion/workover riser systems*
- Part 8: *Remotely Operated Vehicle (ROV) interfaces on subsea production systems*
- Part 9: *Remotely Operated Tool (ROT) intervention systems*
- Part 10: *Specification for bonded flexible pipe*
- Part 11: *Flexible pipe systems for subsea and marine applications*
- Part 16: *Specification for flexible pipe ancillary equipment*
- Part 17: *Guidelines for flexible pipe ancillary equipment*

## Introduction

This part of ISO 13628 is the result of a Joint Industry Project to develop a worldwide industry standard for the design, material selection, analysis, testing, manufacture, handling, transportation, installation and integrity management of flexible pipe ancillary equipment. The objective of this part of ISO 13628 is to provide an integrated approach, together with ISO 13628-16, ISO 13628-2 and ISO 13628-11, to the design of flexible pipe systems. Therefore it is intended that this part of ISO 13628 be used in close conjunction with these documents.

The majority of ancillary equipment is custom-built and can be designed and manufactured in a variety of methods. It is not the intent of this part of ISO 13628 to discourage novel or new developments in ancillary equipment. On the contrary, it is recognised that a variety of designs and methods are possible. For this reason, some topics are presented in general terms to provide guidance to the user while still leaving open the possibility of using alternative approaches. The reader should be aware that ancillary equipment technology (concepts, design and analysis methodologies and criteria, components manufacturing and testing, operational roles and demands, maintenance and inspection, etc.) is in a state of rapid and continuing evolution. Potential users therefore need to apply care in their application of the recommendations within this part of ISO 13628.

Systeme Internationale (SI) units are used in this part of ISO 13628. United States Customary (USC) units may be given in brackets after the SI units.

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# Petroleum and natural gas industries — Design and operation of subsea production systems —

## Part 17: Guidelines for flexible pipe ancillary equipment

### 1 Scope

This part of ISO 13628 provides guidelines for the design, materials selection, analysis, testing, manufacture, handling, transportation, installation and integrity management of flexible pipe ancillary equipment. It supplements ISO 13628-16, which specifies minimum requirements for the design, material selection, manufacture, documentation, testing, marking and packaging of flexible pipe ancillary equipment.

This part of ISO 13628 presents the current best practice for design and procurement of ancillary equipment, and gives guidance on the implementation of the specification for standard flexible pipe products. In addition, this part of ISO 13628 presents guidelines on the qualification of prototype products.

The applicability relating to a specific item of ancillary equipment within this part of ISO 13628 is stated at the beginning of the clause dedicated to that item of ancillary equipment.

This part of ISO 13628 applies to the following flexible pipe ancillary equipment:

- a) bend stiffeners;
- b) bend restrictors;
- c) bellmouths;
- d) buoyancy modules and ballast modules;
- e) subsea buoys;
- f) tethers for subsea buoys and tether clamps;
- g) riser and tether bases;
- h) clamping devices;
- i) piggy-back clamps;
- j) repair clamps;
- k) I/J-tube seals;
- l) pull-in heads/installation aids;
- m) connectors;
- n) load-transfer devices;
- o) mechanical protection;