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

Part 2: Unbonded flexible pipe systems for subsea and marine applications

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

*Partie 2: Systèmes de canalisations flexibles non collées pour
applications sous-marines et en milieu marin*



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Contents

Page

Foreword.....	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	4
4 Symbols and abbreviated terms	9
5 Functional requirements	9
5.1 General.....	9
5.2 Overall requirements	10
5.3 General design parameters	10
5.4 Internal fluid parameters	10
5.5 External environment	12
5.6 System requirements	13
6 Design requirements	16
6.1 Loads and load effects	16
6.2 Pipe design methodology	17
6.3 Pipe structure design	20
6.4 System design requirements.....	25
7 Materials	28
7.1 Material requirements.....	28
7.2 Qualification requirements	32
7.3 Quality assurance requirements	39
8 Manufacturing requirements	41
8.1 Quality assurance requirements	41
8.2 Carcass	43
8.3 Polymer extrusions.....	43
8.4 Pressure and tensile armour layers	45
8.5 Anti-wear and insulation layers.....	45
8.6 End fitting	46
8.7 Special processes.....	47
8.8 Manufacturing tolerances	49
8.9 Repairs	49
9 Documentation	50
9.1 General.....	50
9.2 Design premise	50
9.3 Design load report	51
9.4 Design report.....	51
9.5 Manufacturing quality plan	52
9.6 Fabrication specification	52
9.7 As-built documentation.....	52
9.8 Operation manual	53
10 Factory acceptance tests	54
10.1 General.....	54
10.2 Gauge test	54
10.3 Hydrostatic pressure test	54
10.4 Electrical continuity and resistance tests	55
10.5 Gas-venting system test	55

This is a preview of "ISO 13628-2:2006". [Click here to purchase the full version from the ANSI store.](#)

11	Marking and packaging	56
11.1	Marking.....	56
11.2	Packaging	56
Annex A (informative)	Purchasing guidelines	57
Annex B (informative)	Bend stiffeners and bend restrictors	64
Bibliography		69

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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 13628-2 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 second edition cancels and replaces the first edition (ISO 13628-2:2000), which has been technically revised.

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*

The following parts are under development:

- *Part 12 dealing with dynamic production risers*
- *Part 13 dealing with remotely operated tools and interfaces on subsea production systems*

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Introduction

This part of ISO 13628 is based on API Specification 17J, *Specification for unbonded flexible pipe*, Second edition, November 1999, and the Amendment issued June 2002. This part of ISO 13628 has been technically revised and updated to cater to the needs of the international oil and natural gas industries.

Users of this part of ISO 13628 should be aware that further or differing requirements might be needed for individual applications. This part of ISO 13628 is not intended to inhibit a vendor 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 vendor should identify any variations from this part of ISO 13628 and provide details.