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

**Part 7:
Completion/workover riser systems**

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

*Partie 7: Systèmes de liaison surface/fond de mer pour
complétion/reconditionnement*



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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

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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 13628-7 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*

Introduction

This part of ISO 13628 has been prepared to provide general requirements, recommendations and overall guidance for the user to the various areas requiring consideration during development of subsea production system. The functional requirements defined in this part of ISO 13628 allow alternatives in order to suit specific field requirements.

This part of ISO 13628 constitutes the overall C/WO riser system standard. Functional requirements for components comprising the system and detailed requirements for riser pipe and connector design and analysis are included herein.

This part of ISO 13628 was developed on the basis of API RP 17G:1995, and other relevant documents on subsea production systems.

It is necessary that the users of this part of ISO 13628 be aware that further or different 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 is probably particularly applicable where there is innovative or developing technology. Where an alternative is offered, it is the vendor's responsibility to identify any variations from this part of ISO 13628 and provide details.

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

Part 7: Completion/workover riser systems

1 Scope

This part of ISO 13628 gives requirements and recommendations for the design, analysis, materials, fabrication, testing and operation of subsea completion/workover (C/WO) riser systems run from a floating vessel.

It is applicable to all new C/WO riser systems and may be applied to modifications, operation of existing systems and reuse at different locations and with different floating vessels.

This part of ISO 13628 is intended to serve as a common reference for designers, manufacturers and operators/users, thereby reducing the need for company specifications.

This part of ISO 13628 is limited to risers, manufactured from low alloy carbon steels. Risers fabricated from special materials such as titanium, composite materials and flexible pipes are beyond the scope of this part of ISO 13628.

Specific equipment covered by this part of ISO 13628 is listed as follows:

- riser joints;
- connectors;
- workover control systems;
- surface flow trees;
- surface tree tension frames;
- lower workover riser packages;
- lubricator valves;
- retainer valves;
- subsea test trees;
- shear subs;
- tubing hanger orientation systems;
- swivels;
- annulus circulation hoses;