Design and Operation of Subsea Production Systems—Subsea Structures and Manifolds

ANSI/API RECOMMENDED PRACTICE 17P
FIRST EDITION, JANUARY 2013

ISO 13628-15:2011 (Identical), Petroleum and natural gas industries—Design and operation of subsea production systems—Subsea structures and manifolds

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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.

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ISO 13628-15 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 tools and 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 15: Subsea structures and manifolds*

A Part 12, dealing with dynamic production risers, a Part 14, dealing with high-integrity pressure protection systems (HIPPS), a Part 16, dealing with specification for flexible pipe ancillary equipment, and a Part 17, dealing with recommended practice for flexible pipe ancillary equipment, are under preparation.

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

Part 15: Subsea structures and manifolds

1 Scope

This part of ISO 13628 addresses recommendations for subsea structures and manifolds, within the frameworks set forth by recognized and accepted industry specifications and standards. As such, it does not supersede or eliminate any requirement imposed by any other industry specification.

This part of ISO 13628 covers subsea manifolds and templates utilized for pressure control in both subsea production of oil and gas, and subsea injection services. See Figure 1 for an example of such a subsea system.

Equipment within the scope of this part of ISO 13628 is listed below:

a) the following structural components and piping systems of subsea production systems:

- production and injection manifolds,
- modular and integrated single satellite and multiwell templates,
- subsea processing and subsea boosting stations,
- flowline riser bases and export riser bases (FRB, ERB),
- pipeline end manifolds (PLEM),
- pipeline end terminations (PLET),
- T- and Y-connection,
- subsea isolation valve (SSIV);

b) the following structural components of subsea production system:

- subsea controls and distribution structures,
- other subsea structures;

c) protection structures associated with the above.