Riserless Subsea Well Intervention Systems

API RECOMMENDED PRACTICE 17G4
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Introduction

This document describes equipment, practices, and systems used for open-water riserless subsea well interventions on subsea wells. Open-water riserless subsea well intervention systems do not contain a riser throughout the water column or have a means to facilitate drilling. Riserless subsea well intervention systems are designed to allow a means of introducing tools into and out of a well while containing wellbore pressure at the wellhead or tree. The riserless subsea well intervention system must be capable of circulating seawater or wellbore fluid out of the subsea system prior to recovering the tool string to surface or deploying the tool string into the well.

This recommended practice is a supplementary document and should be used in conjunction with the other API 17G suite of documents;

— API Standard 17G, *Design and Manufacture of Subsea Well Intervention Equipment*

— API Recommended Practice 17G1, *Subsea Configuration and Operation for Subsea Well Intervention Systems*

— API Recommended Practice 17G2, *Subsea Pumping Well Intervention Systems*

— API Recommended Practice 17G3, *Design of Subsea Intervention Systems Using Non-ferrous Alloys*

— API Recommended Practice 17G5, *Subsea Intervention Workover Control Systems*

— API Recommended Practice 17G6, *Global Analysis of Subsea Well Intervention Systems*

If an open-water riserless subsea well intervention system is to be used for subsea pumping, it must meet the requirements of API 17G2.

The development of this document is based on input from API Subcommittee 17 (Subsea Production Systems) technical experts. The technical revisions have been made to accommodate the needs of industry and to move this recommended practice to a higher level of service to the petroleum and natural gas industry.

This document is not intended to replace sound engineering judgment. It is necessary that users of this recommended practice be aware that additional or different requirements can better suit the demands of a particular service environment, the regulations of a jurisdictional authority, or other scenarios not specifically addressed.

Riserless Subsea Well Intervention Systems

1 Scope

This recommended practice is intended to supplement API 17G and be used in conjunction with API 17G1, API 17G2, API 17G5, and API 17G6, and contains recommendations for the design, manufacture, and operation of open-water riserless subsea well intervention systems.

If there is no applicable reference to hardware or operational functional requirements in this document, API 17G, 17G1, 17G2, 17G5, or 17G6 should be followed, as appropriate.

Specific equipment covered by this recommended practice are as follows:

— well control package;

— lubricator isolation valve;

— lubricator;

— pressure control head;

— control system (API 17G5);

— disconnect systems;

— flushing/kill system;

— coiled tubing retrieval and delivery system.

Associated equipment and systems not covered by this recommended practice, but that are often used to perform riserless subsea interventions, are listed below:

— flying leads (see API 17G2);

— vertical fluid conduits (see API 17G2);

— jumpers (see API 17G2);

— fluid conduit connectors (see API 17G2);

— intervention vessels used to execute work in the field;

— topside wireline/coiled tubing motion compensation systems;

— topside handling equipment for wireline/coiled tubing vessel-based equipment.

API 17G contains functional specifications for the following equipment that may be used in riserless interventions;

— tubing hanger orientation joint;

— tubing hanger running tool adapter;

— bore selector;

— lower workover riser package;