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I.S. EN ISO 17078-4:2010

# Petroleum and natural gas industries - Drilling and production equipment - Part 4: Practices for side-pocket mandrels and related equipment (ISO 17078-4:2010)

## I.S. EN ISO 17078-4:2010

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**Petroleum and natural gas industries - Drilling and production equipment - Part 4: Practices for side-pocket mandrels and related equipment (ISO 17078-4:2010)**

Industries du pétrole et du gaz naturel - Équipement de forage et de production - Partie 4: Pratiques pour raccords à poche latérale et équipement associé (ISO 17078-4:2010)

Erdöl- und Erdgasindustrie - Bohr- und Fördereinrichtung - Teil 4: Verfahren für Seitentaschen-Röhre und zugehörige Einrichtungen (ISO 17078-4:2010)

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## **Foreword**

This document (EN ISO 17078-4:2010) 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 European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2010, and conflicting national standards shall be withdrawn at the latest by October 2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

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STANDARD**

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**Petroleum and natural gas industries —  
Drilling and production equipment —**

**Part 4:  
Practices for side-pocket mandrels and  
related equipment**

*Industries du pétrole et du gaz naturel — Équipement de forage et de  
production —*

*Partie 4: Pratiques pour raccords à poche latérale et équipement  
associé*



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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 17078-4 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 17078 consists of the following parts, under the general title *Petroleum and natural gas industries — Drilling and production equipment*:

- *Part 1: Side-pocket mandrels*
- *Part 2: Flow-control devices for side-pocket mandrels*
- *Part 3: Running tools, pulling tools and kick-over tools and latches for side-pocket mandrels*
- *Part 4: Practices for side-pocket mandrels and related equipment*

## **Introduction**

This part of ISO 17078 has been developed by users/purchasers and suppliers/manufacturers of subsurface side-pocket mandrels, flow-control devices used in side-pocket mandrels (hereafter called flow-control devices), and associated latches and installation tools that are used in conjunction with side-pocket mandrel flow-control devices. This equipment is intended for use in the worldwide petroleum and natural gas industry. This part of ISO 17078 is intended to provide supporting information, guidelines and practices to all parties who are involved in the specification, selection, manufacture, testing and use of side-pocket mandrels, flow-control devices and associated latches and installation tools.

In addition to this part of ISO 17078, ISO 17078-1 provides requirements for side-pocket mandrels used in the petroleum and natural gas industry. ISO 17078-2 provides requirements for flow-control devices. And, ISO 17078-3 provides requirements for latches and installation tools that are used in conjunction with side-pocket mandrel flow-control devices. Other pertinent side-pocket mandrel-related information can be found in API standards listed in the bibliography.

It is necessary that users of this part of ISO 17078 be aware that requirements above those outlined in this part of ISO 17078 can be needed for individual applications. This part of ISO 17078 is not intended to inhibit a supplier/manufacture from offering, or the user/purchaser from accepting, alternative equipment or engineering solutions. This can be particularly applicable where there is innovative or developing technology. Where an alternative is offered, it is the responsibility of the supplier/manufacture to identify any variations from this part of ISO 17078 and provide details.

**I.S. EN ISO 17078-4:2010**

# Petroleum and natural gas industries — Drilling and production equipment —

## Part 4: Practices for side-pocket mandrels and related equipment

### 1 Scope

This part of ISO 17078 provides informative documentation to assist the user/purchaser and the supplier/manufacture in specification, design, selection, testing, calibration, reconditioning, installation and use of side-pocket mandrels, flow-control devices and associated latches and installation tools. The product-design and manufacturing-related requirements for these products are included within the other parts of ISO 17078.

The content and coverage of several industry documents are compiled and refined within ISO 17078 (all parts).

### 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14313, *Petroleum and natural gas industries — Pipeline transportation systems — Pipeline valves*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

ISO 17078-1:2004, *Petroleum and natural gas industries — Drilling and production equipment — Part 1: Side-pocket mandrels*

ISO 17078-2:2007, *Petroleum and natural gas industries — Drilling and production equipment — Part 2: Flow-control devices for side-pocket mandrels*

ISO 17078-3:2009, *Petroleum and natural gas industries — Drilling and production equipment — Part 3: Running tools, pulling tools and kick-over tools and latches for side-pocket mandrels*

ANSI/ASME B16.5, *Pipe Flanges and Flanged Fittings*

ANSI/ASME B16.34, *Valves Flanged, Threaded and Welding End*

ANSI/ASME B31.8, *Gas Transmission and Distribution Piping Systems*

ANSI/API MPMS 14.31-1990, *Dimensioning and Tolerancing*

GPA 8185-90, *Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluid, Part 1, General Equations and Uncertainty Guidelines*, American Gas Association, Report No. 3

ASME Boiler and Pressure Vessel Code (BPVC), Section VIII, Pressure Vessels, Division 1, *Rules for Construction of Pressure Vessels*

ASME Boiler and Pressure Vessel Code (BPVC), Section VIII, Pressure Vessels, Division 2, *Alternative Rules*

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