Packers and Bridge Plugs

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ISO 14310:2008 (Modified), Petroleum and natural gas industries—Downhole equipment—Packers and bridge plugs
ERRATA 1

Page 47, Section B.3.3.4.10 g), shall be replaced with the following:

\[ g) \text{ Perform one pressure reversal from the maximum rated pressure from above to the maximum rated pressure from below.} \]
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Suggested revisions are invited and should be submitted to the Standards Department, API, 1220 L Street, NW, Washington, DC 20005, standards@api.org.
# Contents

1 Scope ................................................................................................................................................. 1
2 Normative References ......................................................................................................................... 1
3 Terms and Definitions ......................................................................................................................... 3
4 Acronyms, Abbreviations, and Symbols ............................................................................................. 7
5 Functional Specification ....................................................................................................................... 7
  5.1 General ............................................................................................................................................. 7
  5.2 Type Description ............................................................................................................................. 7
  5.3 Well Parameters ............................................................................................................................. 7
  5.4 Operational Parameters ................................................................................................................ 8
  5.5 Environmental Compatibility ......................................................................................................... 8
  5.6 Compatibility with Related Well Equipment ................................................................................. 8
  5.7 Design Validation ......................................................................................................................... 9
  5.8 Quality Control ........................................................................................................................... 9
6 Technical Specification ......................................................................................................................... 9
  6.1 General ........................................................................................................................................... 9
  6.2 Technical Characteristics ............................................................................................................. 9
  6.3 Design Requirements .................................................................................................................. 9
  6.4 Design Verification ...................................................................................................................... 12
  6.5 Design Validation Requirements ............................................................................................... 12
  6.6 Design Changes .......................................................................................................................... 19
  6.7 Design Validation by Scaling ...................................................................................................... 19
  6.8 Other Validations ....................................................................................................................... 20
  6.9 Assembly Verification .................................................................................................................. 20
7 Supplier's/Manufacturer's Requirements ............................................................................................. 20
  7.1 General ....................................................................................................................................... 20
  7.2 Documentation and Data Control .............................................................................................. 20
  7.3 Product Identification ................................................................................................................ 22
  7.4 Quality Control .......................................................................................................................... 22
8 Repair .................................................................................................................................................... 28
9 Shipment/Storage .................................................................................................................................. 28

Annex A (informative) Use of API Monogram by Licensees .................................................................. 29

Annex B (informative) Requirements for HPHT Environment Equipment ........................................... 32

Annex C (normative) Requirements for HPHT Operational Tools ....................................................... 54

Annex D (informative) Requirements for External Flow Testing ....................................................... 58

Bibliography .............................................................................................................................................. 61
Contents

Figures
1  Example of a Rated Performance Envelope ................................................................. 12
2  Example of Shear Device Options ................................................................. 13
B.1 Example Rated Performance Envelope ................................................................. 49
B.2 Examples of Temperature-cycle Ranges and Temperature Ranges ......................... 50
D.1 Test Setup for Flow Test from Above ................................................................. 59
D.2 Test Setup for Flow Test from Below ................................................................. 59

Tables
1  Design Validation Grade Hierarchy ........................................................................ 14
2  Summary of Quality Requirements ........................................................................ 24
B.1 Parameters for Elastomeric Materials ................................................................. 37
B.2 Parameters for Thermoplastic Materials ............................................................. 38
Foreword

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ISO 14310 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.
Introduction

This specification has been developed by users/purchasers and suppliers/manufacturers of packers and bridge plugs and is intended for use in the petroleum and natural gas industry worldwide. This specification is intended to give requirements and information to both parties in the selection, manufacture, testing, and use of packers and bridge plugs. Further, this specification addresses supplier/manufacturer requirements that set the minimum requirements with which it is necessary that suppliers/manufacturers comply to claim conformity with this specification.

This specification has been structured to allow for grades of increased requirements both in quality control and design validation. These variations allow the user/purchaser to select the grade required for a specific application.

The three quality grades provide the user/purchaser with a choice of requirements to meet a specific preference or application. Quality grade Q3 is the minimum grade of quality offered by this product standard. Quality grade Q2 provides additional inspection and verification steps, and quality grade Q1 is the highest grade provided. Additional quality requirements can be specified by the user/purchaser as supplemental requirements.

Seven standard design-validation grades (V0 to V6) provide the user/purchaser with a choice of requirements to meet a specific preference or application. Design validation grade V6 is the minimum grade and represents equipment where the validation method has been defined by the supplier/manufacturer. The complexity and severity of the validation testing increases as the grade number decreases.

This edition now includes annexes with requirements for HPHT environment equipment, HPHT operational tools, and for external flow testing.

It is necessary that users of this specification be aware that requirements above those outlined in this standard can be needed for individual applications. This specification is not intended to inhibit a supplier/manufacturer 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 necessary that the supplier/manufacturer identify any variations from this specification.
Petroleum and natural gas industries—Downhole equipment—Packers and bridge plugs

1 Scope

This specification provides requirements and guidelines for packers and bridge plugs as defined herein for use in the petroleum and natural gas industry. This specification provides requirements for the functional specification and technical specification, including design, design verification and validation, materials, documentation and data control, repair, shipment, and storage. In addition, products covered by this specification apply only to applications within a conduit. Installation and maintenance of these products are outside the scope of this specification.

This specification includes the following annexes:

— Annex A: Use of API Monogram by Licensees;
— Annex B: Requirements for HPHT Environment Equipment;
— Annex C: Requirements for HPHT Environment Operational Tools;

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.

API Specification Q1, Specification for Quality Management System Requirements for Manufacturing Organizations for the Petroleum and Natural Gas Industry

API Specification 5CT, Specification for Casing and Tubing


ASME Boiler and Pressure Vessel Code, Section V: Nondestructive Examination

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