Specification for Marine Drilling Riser Equipment

API SPECIFICATION 16F
FIRST EDITION, AUGUST 2004

EFFECTIVE DATE: FEBRUARY 1, 2005

REAFFIRMED, AUGUST 2010

ADDENDUM 1, SEPTEMBER 2014

ADDENDUM 2, NOVEMBER 2014

AMERICAN PETROLEUM INSTITUTE

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Upstream Segment

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FOREWORD

This publication is under jurisdiction of the API Subcommittee on Drilling Well Control Systems. This specification was formulated to serve as an aid to procurement of standardized equipment and materials as well as provide instructions to designers and manufacturers of marine drilling riser equipment. It identifies requirements for design, materials, processing and testing of standardized equipment.

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CONTENTS

Specification for Marine Drilling Riser Equipment

1 Scope

1.1 PURPOSE

These specifications establish standards of performance and quality for the design, manufacture, and fabrication of marine drilling riser equipment used in conjunction with a subsea Blowout Preventer (BOP) Stack.

1.2 COVERAGE

This specification provides the requirements for the following major subsystems in the marine drilling riser system:

a. Riser tensioner equipment.*
b. Flex/ball joints.*
c. Choke, kill and auxiliary lines.
d. Drape hoses and jumper lines for flex/ball joints.
e. Telescopic joint (slip joint) and tensioner ring.*
f. Riser joints.*
g. Buoyancy equipment* (only syntactic foam modules eligible for API Monogram).
h. Riser running equipment.*
i. Special riser system components.
j. Lower riser adapter.*

Note: Only those subsystems above that are marked with an asterisk may be considered for API monogramming.

Section 4 of the specification gives a general description of each of these components listed above. Section 5 provides general design requirements for riser components. Section 6 addresses materials, including the riser pipe. Paragraph 6.13 covers welding of couplings to riser pipe and welding of pipe to pipe. It also covers other types of welds used in the fabrication of riser equipment.

Sections 7 through 16 address the following for each component:

a. Service classification.
b. Design.
c. Materials.
d. Dimensions.
e. Process control.
f. Testing.
g. Marking.
h. Packing/Shipping.

2 Normative References

This specification includes by reference, either in total or in part, other API and industry standards listed below. The latest edition of these standards shall be used unless otherwise noted.

API

RP 2RD	*Design of Risers for Floating Production Systems (FPSs) and Tension-Leg Platforms (TLPs)*
Bull 5C3	*Formulas and Calculations for Casing, Tubing, Drill Pipe, and Line Pipe Properties*
Spec 5L	*Line Pipe*
Spec 6A	*Wellhead and Christmas Tree Equipment*
TR 6AM	*Material Toughness*
Spec 8C	*Specification for Drilling and Production Hoisting Equipment*
Spec 9A	*Wire Rope*
RP 9B	*Application, Care and Use of Wire Rope for Oil Field Service*
Spec 16A	*Drill-through Equipment*
Spec 16C	*Choke and Kill Systems*
Spec 16D	*Control Systems for Drilling Well Control Equipment*
RP 16Q	*Design, Selection, Operation and Maintenance of Marine Drilling Riser Systems*