Specification for Drill Pipe

API SPECIFICATION 5D
FIFTH EDITION, OCTOBER 2001

EFFECTIVE DATE: APRIL 30, 2002

American Petroleum Institute

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Upstream Segment

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FOREWORD

This edition of Spec 5D supersedes the fourth edition dated August 1, 1992, and includes items approved by letter ballot through June 1998. The first edition of Spec 5D superseded the thirty-ninth edition of Specification 5A and the fifteenth edition of Specification 5AX. Spec 5D is a combination of the drill pipe requirements detailed in the above editions of the discontinued Specifications 5A and 5AX.

This specification is under the jurisdiction of the API Committee on Standardization of Tubular Goods. The purpose of this specification is to provide standards for drill pipe suitable for use in drilling and producing operations. The tables on drill pipe were prepared in cooperation with the API Committee on Standardization of Drilling and Servicing Equipment.

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This standard shall become effective on the date printed on the cover but may be used voluntarily from the date of distribution.

INFORMATION TO BE SUPPLIED BY THE PURCHASER

When inquiring or placing orders for drill pipe to be manufactured in accordance with API Spec 5D, the purchaser should specify the following on the purchase order:

Specification ..... API Spec 5D
Quantity .....

Internal-upset, external-upset or internal-external-upset (for welding) ..... 9.1, Table 1
Size (outside diameter) ..... Table 1
Weight per foot or wall thickness ..... Table 1
Grade ..... Table 1
Range length ..... 8.5, Table 9
Seamless 4.1
Delivery date and shipping instructions
Inspection by purchaser 10.1, 10.2

The purchaser should also state on the purchase order the requirements concerning the following stipulations, which are optional with the purchaser:

Heat treatment of drill pipe 4.2
Heat and supplementary analyses 5.2, 5.3
Pipe coatings 11.6
Markings in metric units 11.2.3, 11.2.4, 11.2.6
Drill pipe with special threads or end finish 9.1
Pipe ends ..... Section 9
Marking requirements 11.1
Under-thickness tolerance if less than 12.5 percent (Group 3 product only) 8.3
Supplementary Requirements
SR2—Nondestructive Inspection (N5 Notch or $^1/_{16}$-in. Hole) ..... Appendix B
SR15—Test Certificates for Oil Country Tubular Goods ..... Appendix B
SR19—Charpy V-Notch Impact Toughness Testing of Group 1 (Grade E-75) Drill Pipe ..... Appendix B
SR20—Alternate Low Temperature Charpy V-Notch Impact Toughness Testing of Group 1 (Grade E-75) and Group 3 (Grades X-95, G-105, and S-135) Drill Pipe ..... Appendix B
Monogram Marking* ..... D.2—Appendix D

*Users of this specification should note that there is no longer a requirement for marking a product with the API monogram. The American Petroleum Institute continues to license use of the monogram on products covered by this specification but it is administered by the staff of the Institute separately from the specification. The policy describing use of the monogram is contained in Appendix D, herein. No other use of the monogram is permitted. Licensees may mark products in conformance with Appendix D or Section 11 and Nonlicensees may mark products in conformance with Section 11.

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CONTENTS

Page

Page

Specification for Drill Pipe

1 Scope

1.1 COVERAGE

1.1.1 This specification covers Group 1 and Group 3 drill pipe as described below in the designations and wall thicknesses as shown in the standards list, Table 1, and in the dimensional tables (Table 7 and Table 8). The requirements of this specification apply to both Groups unless specifically noted.

Group 1—Grade E drill pipe.

Group 3—All high strength grades of drill pipe. (Grades X-95, G-105, and S-135)

1.1.2 In the dimensional tables herein, pipe is designated by outside diameter size. The outside diameter size of external-upset pipe is the outside diameter of the body of the drill pipe, not the upset portion.

1.2 RETENTION OF RECORDS

Tests and inspections requiring retention of records in this specification are shown in Table 2. Such records shall be retained by the manufacturer and shall be available to the purchaser on request for a 3-year period after the date of purchase from the manufacturer.

Table 1—API Drill Pipe List[a]

Size	Weight Designation	Calculated Plain-End Weight W_{pe} lb/ft	Calculated Plain-End Weight W_{pe} kg/m	Outside Diameter D in.	Outside Diameter D mm	Wall Thickness t in.	Wall Thickness t mm	Grade	Upset Ends, for Weld-on Tool Joints
$2^3/_8$	6.65	6.27	9.33	2.375	60.3	0.280	7.11	E, X, G, S	Ext. Upset
$2^7/_8$	10.40	9.72	14.47	2.875	73.0	0.362	9.19	E, X, G, S	Int. Upset or Ext. Upset
$3^1/_2$	9.50	8.81	13.12	3.500	88.9	0.254	6.45	E	Int. Upset or Ext. Upset
$3^1/_2$	13.30	12.32	18.34	3.500	88.9	0.368	9.35	E, X, G, S	Int. Upset or Ext. Upset
$3^1/_2$	15.50	14.64	21.79	3.500	88.9	0.449	11.40	E	Int. Upset or Ext. Upset
$3^1/_2$	15.50	14.64	21.79	3.500	88.9	0.449	11.40	X, G, S	Ext. Upset or Int.-Ext. Upset
4	14.00	12.95	19.27	4.000	101.6	0.330	8.38	E, X, G, S	Int. Upset or Ext. Upset
$4^1/_2$	13.75	12.25	18.23	4.500	114.3	0.271	6.88	E	Int. Upset or Ext. Upset
$4^1/_2$	16.60	15.00	22.32	4.500	114.3	0.337	8.56	E, X, G, S	Ext. Upset or Int.-Ext. Upset
$4^1/_2$	20.00	18.71	27.84	4.500	114.3	0.430	10.92	E, X, G, S	Ext. Upset or Int.-Ext. Upset
5	16.25	14.88	22.16	5.000	127.0	0.296	7.52	X, G, S	Int. Upset
5	19.50	17.95	26.70	5.000	127.0	0.362	9.19	E	Int.-Ext. Upset
5	19.50	17.95	26.70	5.000	127.0	0.362	9.19	X, G, S	Ext. Upset or Int.-Ext. Upset
5	25.60	24.05	35.80	5.000	127.0	0.500	12.70	E	Int.-Ext. Upset
5	25.60	24.05	35.80	5.000	127.0	0.500	12.70	X, G, S	Ext. Upset or Int.-Ext. Upset
$5^1/_2$	21.90	19.83	29.52	5.500	139.7	0.361	9.17	E, X, G, S	Int.-Ext. Upset
$5^1/_2$	24.70	22.56	33.57	5.500	139.7	0.415	10.54	E, X, G, S	Int.-Ext. Upset
$6^5/_8$	25.20	22.21	33.04	6.625	168.3	0.330	8.38	E, X, G, S	Int.-Ext. Upset
$6^5/_8$	27.72	24.24	36.06	6.625	168.3	0.362	9.19	E, X, G, S	Int.-Ext. Upset

[a]Drill pipe with special end finish is available under this specification. See 9.1.