

Specification for Drill Pipe

API SPECIFICATION 5D
FIFTH EDITION, OCTOBER 2001

EFFECTIVE DATE: APRIL 30, 2002



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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 The first edition of Spec 5D superseded the thirty-ninth edition of Specification 5A and the fifteenth edition of Specification 5AX.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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Attention Users: Portions of this publication have been changed from the previous edition of Specification 5D. The locations of changes have been marked with a bar in the margin, as shown to the left of this paragraph. In some cases the changes are significant, while in other cases the changes reflect minor editorial adjustments. The bar notations in the margins are provided as an aid to users as to those parts of this publication that have been changed from the previous edition, but API makes no warranty as to the accuracy of such bar notations.

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
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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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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		Outside Diameter		Wall Thickness		Grade	Upset Ends, for Weld-on Tool Joints
		lb/ft	kg/m	in.	mm	in.	mm		
		W_{pe}		D		t			
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

^aDrill pipe with special end finish is available under this specification. See 9.1.