

D3.6M:2017
An American National Standard



Underwater Welding Code



AWS D3.6M:2017
An American National Standard

Approved by the
American National Standards Institute
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Underwater Welding Code

6th Edition

Supersedes AWS D3.6M:2010

Prepared by the
American Welding Society (AWS) D3 Committee on Marine Welding

Under the Direction of the
AWS Technical Activities Committee

Approved by the
AWS Board of Directors

Abstract

This code covers the requirements for welding structures or components under the surface of water. It includes welding in both dry and wet environments. Clauses 1 through 8 constitute the general requirements for underwater welding, while clauses 9 through 11 contain the special requirements applicable to three individual classes of weld as follows:

Class A—Comparable to above-water welding

Class B—For less critical applications

Class O—To meet the requirements of another designated code or specification



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Foreword

This foreword is not part of this standard but is included for informational purposes only.

In 1975, the AWS Committee on Marine Construction requested the Subcommittee on Underwater Welding to establish a standard reflecting state-of-the-art technology relative to underwater welding. The first edition of the code was published in 1983, with subsequent editions issued in 1989, 1993, 1999, and 2010.

Clauses 1 through 8 constitute the general requirements applicable to all classes of underwater welds. Clauses 9 through 11 contain unique requirements applicable to each class. Initially applied as a means of temporary repair for damaged steel-hulled vessels, underwater welding has evolved into an accepted method of construction and repair of engineered structures. Applications now include engineered repair and alteration of off-shore structures, submerged marine pipelines, underwater port facilities and nuclear power plant components.

This 6th edition incorporates the following major revisions:

- (1) Cleaning requirements have been better defined (5.11)
- (2) Acceptance of qualification to earlier editions of D3.6M is incorporated (7.1.3)
- (3) Ultrasonic Examination Clause 8, Part IV, has been updated to better align with the UT technique described in AWS D1.1/D1.1M, *Structural Welding Code—Steel*
- (4) Sample Forms have been revised (Annex A)
- (5) An informative annex has been added to address the qualification of marine welding inspectors (Annex E)
- (6) There is a restructuring of the clause numbers
- (7) Ultrasonic Stress Relieving has been added to the document (Terms and Definitions, Workmanship, Welding Variables, and Annex C)

A vertical line in the margin or underlined text in clauses, tables, or figures indicates a technical or significant change from the 2010 edition.

Comments and suggestions for the improvement of this standard are welcome. They should be addressed to the Secretary, AWS D3B Subcommittee on Underwater Welding, American Welding Society, 8669 NW 36 St, # 130, Miami, FL 33166.

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Table of Contents

	Page No.
<i>Personnel</i>	v
<i>Foreword</i>	vii
<i>List of Tables</i>	xiii
<i>List of Figures</i>	xiii
<i>List of Forms</i>	xiv
1. General Requirements	1
1.1 Scope	1
1.2 Units of Measurement	1
1.3 Safety	1
1.4 Application	2
1.5 Base Metals	2
1.6 Welding Process	2
1.7 Welding and NDE Symbols	3
2. Normative References	4
3. Terms and Definitions	6
4. Classification and Design of Welded Connections	9
4.1 Classification of Welds	9
4.2 Design	9
5. Workmanship	10
5.1 General	10
5.2 Base Metal Preparation	10
5.3 Assembly	10
5.4 Confirmation Weld	10
5.5 Dimensional Tolerances	11
5.6 Weld Profiles	11
5.7 Tack Welds and Temporary Welds	11
5.8 Repair	11
5.9 Peening	11
5.10 Arc Strikes	12
5.11 Weld Cleaning	12
6. Technique	13
6.1 Filler Metal	13
6.2 Measurement of Variable Conditions	13
6.3 Weld Temperature Control	13
7. Qualification	14
Part I—General Requirements	14
7.1 Approved Procedure	14
7.2 Welder Performance Qualification	14
7.3 Qualification Responsibility	14

Part II—Welding Procedure Qualification	14
7.4 Limitation of Variables	14
7.5 Procedure Qualification Variables	15
7.6 Types of Tests	15
7.7 Position of Test Welds	15
7.8 Joint Design	17
7.9 Test Specimens: Number and Type	17
7.10 Preparation and Testing of Specimens	17
7.11 Test Results Required	18
7.12 Supplemental Requirements	19
7.13 Records	19
Part III—Welder Performance Qualification	19
7.14 General	19
7.15 Limitations of Variables	19
7.16 Qualification Tests Required	19
7.17 Method of Testing	20
7.18 Tests Results Required	20
7.19 Retests	20
7.20 Period of Effectiveness	20
7.21 Records	20
8. Inspection	46
Part I—General Requirements	46
8.1 General	46
8.2 Inspection of Materials	46
8.3 Inspection of Equipment	46
8.4 Verification of Procedure and Performance Qualification	46
8.5 Inspection of Work and Records	46
8.6 Obligations of Contractor	47
8.7 Inspection Methods	47
8.8 Inspection Personnel Qualification	47
Part II—Visual Examination	48
8.9 General	48
8.10 Procedure	48
Part III—Radiographic Examination	48
8.11 General	48
8.12 Procedure	49
Part IV—Ultrasonic Examination	50
8.13 General	50
8.14 <u>UT Operator and Equipment</u>	50
8.15 Procedure	50
Part V—Magnetic Particle Examination	52
8.16 General	52
8.17 Procedure	52
Part VI—Electromagnetic Technique Examination	53
8.18 General	53
8.19 Procedure	53
9. Class A Welds	64
9.1 Application	64

Part I—Welding Procedure Qualification	64
9.2 Testing Requirement	64
9.3 Groove Welds	64
9.4 Fillet Welds	65
Part II—Welder Performance Qualification	65
9.5 Testing Requirements	65
9.6 Groove Welds	65
9.7 Fillet Welds	66
Part III—Examination	66
9.8 Examination Requirements	66
9.9 Visual Acceptance Criteria	66
9.10 Radiographic Test Acceptance Criteria	67
9.11 Ultrasonic Examination Acceptance Criteria	67
9.12 Macroetch Test Acceptance Criteria	68
10. Class B Welds	78
10.1 Application	78
Part I—Welding Procedure Qualification	78
10.2 Testing Requirement	78
10.3 Groove Welds	78
10.4 Fillet Welds	79
Part II—Welder Performance Qualification	79
10.5 Testing Requirements	79
10.6 Groove Welds	79
10.7 Fillet Welds	79
Part III—Examination	80
10.8 Examination Requirements	80
10.9 Visual Acceptance Criteria	80
10.10 Radiographic Test Acceptance Criteria	80
10.11 Macroetch Test Acceptance Criteria	81
10.12 Fillet Weld Break Test Acceptance Criteria	81
11. Class O Welds	89
11.1 Application	89
Part I—Welding Procedure Qualification	89
11.2 Testing Requirements	89
11.3 Groove Welds	89
11.4 Fillet Welds	90
Part II—Welder Performance Qualification	90
11.5 Requirements	90
Part III—Examination	90
11.6 Examination Requirements	90
11.7 Acceptance Criteria	90
Annex A (Informative)—Sample Forms	93
Annex B (Informative)—Recommended Guidelines for Safety in Underwater Welding	103
Annex C (Informative)—Commentary on AWS D3.6M:2017, Underwater Welding Code	107
Annex D (Informative)—References	117
Annex E (Informative)— <u>Marine Welding Inspectors</u>	123
Annex F (Informative)—Requesting an Official Interpretation on an AWS Standard	125
Index	127
List of AWS Documents on Marine Welding	131

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List of Tables

Table	Page No.	
7.1	Welding Variables—Dry Welding by Shielded Metal Arc, Gas Metal Arc, Flux Cored Arc, Gas Tungsten Arc, and Plasma Arc Welding Process	21
7.2	Welding Variables—Wet Welding by Shielded Metal Arc or Flux Cored Arc Welding	23
7.3	Depth Limitation for Qualification Welding	24
7.4	Procedure Qualification—Type and Position Limitations	25
7.5	Positions for Welder Qualification	26
7.6	Pipe Diameter Groups for Welder Qualification	26
9.1	Welding Procedure Qualification—Number and Type of Test Specimens for Class A Welds	69
9.2	Welding Procedure Qualification—Mechanical Test Acceptance Criteria for Class A Welds	70
9.3	Welder Performance Qualification—Number and Type of Test Specimens for Class A Welds (Per Welder)	70
10.1	Welding Procedure Qualification—Number and Type of Test Specimens for Class B Welds	82
10.2	Welding Procedure Qualification—Mechanical Test Acceptance Criteria for Class B Welds	83
10.3	Welder Performance Qualification—Number and Type of Test Specimens for Class B Welds (Per Welder)	83
11.1	Welding Procedure Qualification—Number and Type of Test Specimens for Class O Welds	91

List of Figures

Figure	Page No.	
5.1	Tolerances in Assembly of Groove Weld Butt Joints—Dry Welding	12
7.1	Positions of Groove Welds	27
7.2	Positions of Fillet Welds	28
7.3	Welding Test Positions for Groove Welds in Plates	29
7.4	Welding Test Positions for Groove Welds in Pipe or Tubing	30
7.5	Welding Test Positions for Fillet Welds in Plate	32
7.6	Welding Test Positions for Fillet Welds in Pipe or Tubing	33
7.7	Reduced-Section Tension Specimens	34
7.8	Fillet Weld Break and Macroetch Test Specimens	35
7.9	Lap Joint Fillet Macroetch Test Assembly and Specimen Location	36
7.10	Face- and Root-Bend Specimens	37
7.11	Side-Bend Specimens	38
7.12	Bend Test Jigs	39
7.13	All-Weld-Metal Tension and Impact Specimen Test Plate Design and Specimen Locations	40
7.14	All-Weld-Metal Tension Test Specimen Design	41
7.15	Location of Charpy V-Notch Impact Test Specimen in Test Weld	42
7.16	Fillet Weld Shear Strength Specimens—Longitudinal from Plate	43
7.17	Fillet Weld Shear Strength Specimens—Transverse from Plate	44
7.18	Transverse Weld Shear Strength Test Coupon for Pipe	45
7.19	Bridge Bend Test	45
8.1	<u>Standard Reference Reflector</u>	54