

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
January 10, 2017

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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