



Designation: A488/A488M – 17

Standard Practice for Steel Castings, Welding, Qualifications of Procedures and Personnel¹

This standard is issued under the fixed designation A488/A488M; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

This standard has been approved for use by agencies of the U.S. Department of Defense.

1. Scope*

1.1 This practice covers the qualification of procedures, welders, and operators for the fabrication and repair of steel castings by electric arc welding.

1.1.1 Qualifications of a procedure and either or both the operator or welder under Section IX of the ASME Boiler and Pressure Vessel Code shall automatically qualify the procedure and either or both the operator or welder under this practice. P-number designations in the ASME grouping of base metals for qualification may be different than the category numbers listed in [Table 1](#). Refer to [Appendix X1](#) for a comparison of ASTM category numbers with the corresponding ASME P-Number designations.

1.2 Each manufacturer or contractor is responsible for the welding done by his organization and shall conduct the tests required to qualify his welding procedures, welders, and operators.

1.3 Each manufacturer or contractor shall maintain a record of welding procedure qualification tests ([Fig. 1](#)), welder or operator performance qualification tests ([Fig. 2](#)), and welding procedure specification ([Fig. 3](#)), which shall be made available to the purchaser's representative on request.

1.4 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in nonconformance with the standard.

1.4.1 *SI Units*—Within the text, the SI units are shown in brackets.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate*

safety and health practices and determine the applicability of regulatory limitations prior to use.

1.6 This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 ASTM Standards:²

- [A27/A27M Specification for Steel Castings, Carbon, for General Application](#)
- [A128/A128M Specification for Steel Castings, Austenitic Manganese](#)
- [A148/A148M Specification for Steel Castings, High Strength, for Structural Purposes](#)
- [A216/A216M Specification for Steel Castings, Carbon, Suitable for Fusion Welding, for High-Temperature Service](#)
- [A217/A217M Specification for Steel Castings, Martensitic Stainless and Alloy, for Pressure-Containing Parts, Suitable for High-Temperature Service](#)
- [A297/A297M Specification for Steel Castings, Iron-Chromium and Iron-Chromium-Nickel, Heat Resistant, for General Application](#)
- [A351/A351M Specification for Castings, Austenitic, for Pressure-Containing Parts](#)
- [A352/A352M Specification for Steel Castings, Ferritic and Martensitic, for Pressure-Containing Parts, Suitable for Low-Temperature Service](#)
- [A356/A356M Specification for Steel Castings, Carbon, Low Alloy, and Stainless Steel, Heavy-Walled for Steam Turbines](#)
- [A370 Test Methods and Definitions for Mechanical Testing of Steel Products](#)

¹ This practice is under the jurisdiction of ASTM Committee A01 on Steel, Stainless Steel and Related Alloys and is the direct responsibility of Subcommittee A01.18 on Castings.

Current edition approved May 1, 2017. Published May 2017. Originally approved in 1963. Last previous edition approved in 2016 as A488/A488M – 16. DOI: 10.1520/A0488_A0488M-17.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard