

WELDING PROCEDURE CERTIFICATIONS IN ACCORDANCE WITH AWS REQUIREMENTS

AWS D1.1/D1.1M:2010, STRUCTURAL WELDING CODE — STEEL

This code covers the welding requirements for any type of welded structure made from the commonly used carbon and low-alloy constructional steels.

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D1.1 / 2000	GTAW	AISI 4130	1/8" TO 1/4"	DBL. BEVEL GROOVE BUTT
D1.1 / 2000	GMAW	ASTM A36	3/8"	DBL. BEVEL GROOVE BUTT
D1.1 2004	GMAW	ASTM A36	1/8"-3/4"	CJP GROOVE WELDS FOR
D1.1 2002	GMAW			NONTUBULAR CONNECTIONS
D1.1 2006	GMAW	ASTM A36	1/2"	PJP FILLET WELDS FOR NONTUBULAR CONNECTIONS

AWS D1.2/D1.2M:2008, STRUCTURAL WELDING CODE — ALUMINUM

This code contains the requirements for fabricating and erecting welded aluminum structures.

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D1.2 1997	GTAW	AL 6061	3/8"	T-JOINT

AWS D1.3/D1.3M:2008, STRUCTURAL WELDING CODE — SHEET STEEL

Covers arc welding of structural sheet/strip steels, including cold formed members, Applicable to welding of commonly used structural quality low-carbon hot rolled and cold rolled sheet and strip steel, Three weld types unique to sheet steel – arc spot, arc seam, and arc plug welds – are included.

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D1.3 2008	GTAW	1010 STEEL TUBE	0.40" - 0.80"	SQUARE END BUTT
D1.3 2008	GMAW	ASTM A36	1/8"-1/8"	PJP FILLET WELDS FOR NONTUBULAR CONNECTIONS
D1.3 2008	GMAW	ASTM A36	1/8"-1/4"	PJP FILLET WELDS FOR NONTUBULAR CONNECTIONS

AWS D1.6/D1.6M:2007, STRUCTURAL WELDING CODE — STAINLESS STEEL

Covers requirements for welding stainless steel structural assemblies/components (excluding pressure vessels or pressure piping) using gas metal arc welding, shielded metal arc welding, flux cored arc welding, submerged arc welding, and stud welding

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D1.6 1999	GTAW	316L	1/8"	SQUARE GROOVE BUTT JOINT
D1.6 1999		316L	1/8"	DOUBLE BEVEL GROOVE BUTT JOINT
D1.6 1999		316L	1/8"-1/4"	SQUARE GROOVE BUTT JOINT
D1.6 1999		RA-330	1 1/4" - 1 3/4"	T-JOINT
D1.6 2007	GMAW	304	2" OD X 0.062"	CJP GROOVE WELD
D1.6 2007	GMAW	304	2" OD X 0.062"	CJP GROOVE WELD
D1.6.1999	MIGFLUX	316	1/8" - UNLIMITED	PJP FILLET WELD
D1.6.1999	MIGFLUX	316	1/8" - UNLIMITED	T JOINT / LAP JOINT

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AWS D9.1M/D9.1:2006, SHEET METAL WELDING CODE

Covers qualification, workmanship, and inspection requirements for both arc welding and braze welding, as they apply to the fabrication, manufacture, and erection of nonstructural sheet metal components and systems.

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D9.1/ 2006	GMAW	1010 STEEL TUBE	0.040" To Unlimited	LAP JOINT

AWS D17.1/D17.1M:2010, SPECIFICATION FOR FUSION WELDING FOR AEROSPACE

Covers requirements for fusion welding of aerospace hardware including the design of welded connections, welder qualifications, operators and procedures, fabrication and assembly, inspection: criteria, repair of existing structures and welding of nonflight hardware.

AWS	PROCESS	MATERIAL	THICKNESS	WELD JOINT
D17.1	GMAW	A36 PLATE	0.167" – 1.00"	SINGLE V GROOVE
D17.1 B2.1	GMAW	6061-T AL	0.167" – 1.00"	T FILLET
D17.1	GTAW	316L	0.167" – 1.00"	T FILLET
D17.1	GTAW	17-4	0.167" – 1.00"	T FILLET

ASME BOILER & PRESSURE VESSEL CODE Section IX, Qualification Standard for Welding and Brazing

A.S.M.E.	PROCESS	MATERIAL	THICKNESS	WELD JOINT
SECTION IX	GTAW	ASTM A36	.125 - UNLIMITED	
SECTION IX	GMAW	ASTM A36	.125 - UNLIMITED	
SECTION IX	SMAW	ASTM A36	.125 - UNLIMITED	
SECTION IX 2004		ASTM A516 GRADE 70	0.187" - UNLIMITED	CJP GROOVE WELD NONTUBULAR CONNECTIONS

MIL-HDBK-1941 ARMOR Homogenous Armor to Low Carbon Steel

MIL-HDBK-1941 ARMOR Homogenous Armor to Armor

MIL-STD	PROCESS	MATERIAL	THICKNESS	WELD JOINT
MIL-HDBK-1941	GMAW	MIL-A-12560H – ARMOR PLATE	1/8" - UNLIMITED	T- FILLET
MIL-HDBK-1941	GMAW	HOMOGENEOUS ARMOR STEEL	1/8" TO 1"	SINGLE BEVEL BUTT JOINT
MIL-HDBK-1941	GMAW	HOMOGENEOUS ARMOR TO LOW CARBON STEEL	1/8" TO 1"	CJP GROOVE WELDS FOR NONTUBULAR CONNECTIONS
MIL-HDBK-1941	GMAW	HOMOGENEOUS ARMOR TO LOW CARBON STEEL	1/8" TO 1"	CJP GROOVE WELDS FOR NONTUBULAR CONNECTIONS