



WELDING FAST FACTS

VTG WELDING PROCEDURES AND CERTIFICATIONS

The following VTG welding procedures have been approved in accordance with reference (a),(b),(c),(d) and (e) by the Naval Surface Warfare Center, Carderock Division (NSWCCD), Code 623.

- Ref: (a) NAVSEA Technical Publication S9074-AQ-GIB-010/248, Requirements for Welding and Brazing Procedure and Performance Qualification.
- (b) MIL-STD-1689, Fabrication, Welding and Inspection of Ships Structure.
- (c) NAVSEA Technical Publication S9074-AR-GIB-010/278, Requirements for Fabrication Welding and Inspection, and Casting Inspection and Repair for Machinery, Piping, and Pressure Vessels.
- (d) NAVSEA Technical Publication T9074-AD-GIB-010/1688, Requirements for Fabrication, Welding, and Inspection of Submarine Structure.
- (e) NAVSEA 0900-LP-001-7000, Fabrication and Inspection of Brazed Piping Systems.

Doc ID	Title
WI-CO-WLD-001	Shielded Metal Arc Welding (SMAW) Procedure for Mild Steel and Quenched and Tempered Alloy Steels (SUPSHIP approved)
WI-CO-WLD-002	Gas Metal Arc Welding (GMAW) Procedure for S-25 Aluminum Alloy 5456
WI-CO-WLD-003	Flux Core Arc Welding (FCAW) Procedure for Mild, Quenched & Tempered Alloy Steel
WI-CO-WLD-004	Shielded Metal Arc Welding (SMAW) Procedure for Mild Steel and Quenched and Tempered Alloy Steels HY-80, HY-100 Materials (NAVSEA Approved for Submarine Structure) IAW T9074-AD-GIB-010/1688
WI-CO-WLD-005	Stud Welding Procedure-Carbon Steel and Stainless Steel Studs to Hy 80 Materials
WI-CO-WLD-006	Welder Visual Training and Test Procedure
WI-CO-WLD-007	Manual Torch Brazing, P-3 Class Pipe
WI-CO-WLD-009	Tungsten Inert Gas (TIG) Welding Procedure for Aluminum and Aluminum Base Alloys
WI-CO-WLD-010	Welder Training and Performance Requirements
WI-CO-WLD-013	Welding Machine Verification
WI-CO-WLD-014	Shielded Metal Arc Welding Procedure (SMAW) Stainless Steel to Mild Steel and Quenched and Tempered Alloy Steels.

WI-CO-WLD-015	Shielded Metal Arc Welding Procedure (SMAW) for Welding High Alloy Stainless Steel Alloys. (Austenitic)
WI-CO-WLD-016	Gas Tungsten Arc Welding (GTAW) for (S-34), (S-42), and (S-43) Copper Nickel and Nickel Base Alloys for Welding Pipe, Forgings, Casting Shapes and Plates.
WI-CO-WLD-017	Gas Tungsten Arc Welding (GTAW) for Socket Welding Copper Nickel (S-34) to Steel Alloys (S-1) Materials.
WI-CO-WLD-018	Procedure for Bench Marking Socket Joints
WI-CO-WLD-019	Welding-Filler Material Control
WI-CO-WLD-020	Procedure for Liquid Penetrant Examination
WI-CO-WLD-021	Procedure for Magnetic Particle Testing and Examination
WI-CO-WLD-022	Stud Welding Procedure (HY-80)
WI-CO-WLD-023	Gas Tungsten Arc Welding (GTAW) Procedure welding (S8) High Alloy Stainless Steels (Austenitic) in Pipe, Forgings, Castings, Shapes, and Plates.
WI-CO-WLD-024	Gas Tungsten Arc Welding (GTAW) Procedure welding Carbon and Quenched and Tempered Steel Alloys
WI-CO-WLD-025	Stud Welding Procedure (Carbon/HY-80)
WI-CO-WLD-026	Flux Core Arc Welding (FCAW) procedure Welding High Alloy Stainless Steels(Austenitic)
WI-CO-WLD-027	Flux Core Arc Welding (FCAW) procedure Welding High Alloy Stainless Steels(S8) Welded to Carbon Steels(S1)
WI-CO-WLD-028	Gas Metal Arc Welding (GMAW) Procedure for Aluminum Base Alloys
WI-CO-WLD-029	Process Control Procedure (PCP) for Welding and Repair CG 47 Class-Aluminum Superstructure
WI-CO-WLD-030	Process Control Procedure (PCP) for Welding and Repair FFG 7 Class-Aluminum Superstructure
WI-CO-WLD-031	Stud Welding Procedure-Aluminum Studs
WI-CO-WLD-032	Gas Tungsten Arc Welding (GTAW) Procedure Welding Stainless Steel Alloys (Austenitic) to Carbon, Quenched and Tempered Steel Alloys.
WI-CO-WLD-033	Gas Tungsten Arc Welding (GTAW) Procedure Welding Copper Nickel Alloys(S-34) to Copper Alloys (S-31)
WI-CO-WLD-034	Gas Tungsten Arc Welding (GTAW) Procedure Welding Socket Welding Copper Nickel Alloys(S-34) to (S-34) to Stainless Steel Alloys (S-8)

Qty.	Welding Personnel
27	Qualified Welders in accordance with reference (a),(b),(c) and (d).

ABS Weld Qualified Procedures

The following welding procedures have been reviewed by American Bureau of Shipping (ABS) representative and found to be in compliance with the 2003 ABS Rules, Materials, and Welding, Part 2, Chapter 4.

Doc ID	Title
WI-CO-WLD-001/004	Shielded Metal Arc Welding (SMAW) Procedure for Mild Steel and Quenched and Tempered Alloy Steels (Portsmouth Sup Ship approval in accordance with reference (b).

WI-CO-WLD-002	Gas Metal Arc Welding (GMAW) Procedure for S-21, S-22, and S-25 Aluminum Base Alloys.
WI-CO-WLD-003	Flux Core Arc Welding (FCAW) Procedure for Mild, Quenched & Tempered Alloy Steel
WI-CO-WLD-014	Shielded Metal Arc Welding (SMAW) Procedure Welding Austenitic S. steel to Mild Steel
WI-CO-WLD-015	Shielded Metal Arc Welding (SMAW) Procedure High Alloy Stainless Steel (Austenitic)

Qty.	VT Milcom Welding Personnel (ABS)
9	(ABS) Certified Welders in accordance with the above procedures.

VTG Non-Destruction testing personnel are qualified in accordance with the following references:

- Ref: (a) NAVSEA Technical Publication T9074-AS-GIB-010/271 Requirements for Nondestructive Testing Methods.
- (b) VTG WI-CO-WLD-012, Nondestructive Testing, and Personnel Qualification Written Practice Procedure (NDT)

Doc ID	Title
WI-CO-WLD-011	Visual Inspection Procedures
WI-CO-WLD-020	Procedure for Liquid Penetrant Examination
WI-CO-WLD-021	Procedure for Magnetic Particle Testing and Examination

Qty.	NDT Personnel
18	Qualified Level II Visual Inspection (VT) Inspectors
2	Qualified Level III Visual Inspection (VT) Inspectors
3	Qualified Level II Liquid Penetrant Testing (PT)
1	Qualified Level III Liquid Penetrant Testing (PT)
3	Qualified Level II Magnetic Particle Testing (MT)
1	Qualified Level III Magnetic Particle Testing (MT)