

**D & G Machine**  
Weld process currently in use.

Current WPS #	Process	Base material	Filler wire	Backing/no backing
<b>CARBON STEEL</b>				
11.1c	GTAW	P1 to P1 (A516 GR70)	ER70S-2	Backing only
12.1	SMAW	P1 to P1 (SA 106 GR B)	E7018	Open root- pipe
14.1 & (b2.1-1-020-94r)	FCAW	P1 TO P1 (SA36)	E71T1	Backing only
19.1	SMAW	P1 TO P1 (A36)	E7018	Backing only
20.1	GMAW-(pulse)	P1 TO P1 (SA285)	ER70S-2	Backing only
30.1	GMAW-(pulse)	P1 TO P1 (A36)	E70S-6	Backing only
38.1C	GMAW-(spray)	P1 TO P1 (SA516 gr70)	E70S-6	Backing only
<b>CARBON STEEL</b>				
71.1	FCAW	P1 to P5A (SA387 GR22 CL2 TO SA 516 GR70)	E70T1	Backing only
73.1	GTAW	P1 to P5A (SA516 GR70, SA387 GR22 CL2)	ER70S-2	Open root
<b>CARBON STEEL</b>				
27.1	GTAW	P1 TO P8 (SA516 GR22 CL2, 304SS)	ER309	Open root
37.1	FCAW	P1 TO P8 (A36-304LSS)	309LT-1	Backing only
110.1	GMAW-(spray)	P1 TO P8 (sa516 gr70, 304L)	E309L	Backing only
<b>CARBON STEEL</b>				
45.1	FCAW	P4 TO P4 (SA387-11 C1 1)	E81T-B2	Open root
76.1	GTAW	P4 TO P8( SA387 GR22 CL2,TP304)	ER309	Open root
<b>CROME MOLY</b>				
43.1	SMAW	P5A TO P5A (A387GR22C122)	E9016-B3	Backing only
66.1	FCAW	P5A to same (SA387 GR22 CL2)	E90T1-B3	Backing only
67.1/ 11.1	GTAW	P5A to same (SA387 GR22 CL2)	ER90S-B3	Open root
81.1	GTAW	P5A to P6 (SA387 GR22 CL2),410		
109.1	GMAW-(spray)	P5A to same (SA387 GR22 CL2)	E90C-B3	Open root
72.1	FCAW	P5A to P8 (SA387 GR22 CL2, 310SS)	E309LT-1	Backing only
122.1	GTAW	P5A (A387gr22cl2) to P8 (SA213-304L)	ER309	Backing only
<b>STAINLESS STEEL</b>				
15.1	GTAW/SMAW	P8 TO-P8 (SA213) *304SS*	ER308/E308-16	Open root
17.1	FCAW	P8 TO-P8 (SA240) *304LSS*	E316LT-1	Open root
28.1	GTAW	P8 TO P8 (304SS)	ER308	Open root
46.1B	GMAW-(pulse)	P8-P8 (304L)	E-308L	Open root
50.1	GTAW	P43 TO P43	ERNiCrMo-3-er 625	Open root
<b>ALUMINUM</b>				
59.1	GMAW-(pulse)	P26 TO P26 (ALUM-6061T-6)	ER5356	Fillet welds
85.1A	GTAW	M25 to M25 (alum-5456)	ER5356	Open root
85.1B	GTAW	M23 to M23 (alum 6061)	ER5356	Open root
85.1C	GMAW	M25 to M23 (alum-5456-6061)	ER5356	Open root
<b>ALUMINUM</b>				
31.1	GTAW	.125thk Group II to same (A606)	ER70s-2	Open root
32.1	GTAW	.075thk Group II to same(A606)	ER70s-2	Backing only
90.1	FCAW-spray	HY-80 type 2	Tri-mark	w/wo Backing
100.1	GMAW-spray	MIL-A-46100( HHA),M1(SA516), M8(304L),MIL-A-46100	ok Tigrod	w/ Backing
101.1	GMAW-spray	MIL-A-12560( RHA) , M1(sa516), M8(304I) OR MIL-A-12560 (RHA)	ok Autrod16.95	Backing only
102.1	GTAW	MIL-A-46100( HHA),M1(SA516), M8(304L),MIL-A-46100	ok Autorod16.95	Open root
103.1	GTAW	MIL-A-12560(RHA),M1(SA515), M8(304L), MIL-A-46100	ok Autrod Bare	Backing only
12/20/2020	Revision	moved 50.1 from alum. To SS		