



Your  Logo		Your Company Name										
Welding Procedure Specification – Number XXX-XX												
Revision 00 Page 1 of 2												
SCOPE: First issue as WPS to be used for GTAW/SMAW of P1 materials, as welded and PWHT below lower transition temp.												
SUPPORTING PQR(s) 599,600,601,602, 604,604A												
WELDING PROCESS(es)		1.		GTAW				TYPE		Manual		
QW401		2.		SMAW				TYPE		Manual		
JOINT DESIGN-QW402						POSTWELD HEAT TREATMENT-QW407						
Joint Design		Groove Weld (See GWP-01 for more details)				Temp Range.		*When required, 1100-1200				
Backing		Both Yes and No				Time Range		10 hr Max.				
Backing Matl.		P1 bar/ring, weld metal, ceramic				Other		See GWP-01 for specific requirements & exemptions				
Retainers		No										
Root Spacing		See GWP-01 ASME/ANSI										
Other												
BASE METALS-QW403						GAS-QW408						
P-No.		1	Gp. No.	1,2 *	to P-No.	1	Gp. No.	1,2 *	Shielding Gas(es)		Argon	
Thickness Range (Base Metal):		Big T				Percent Comp. (Mixtures)		Welding Grade				
Groove		1/16” to 8”	Fillet	NA	Shielding Gas Flow Rate		10-35		CFH			
Pipe Diameter Range:					Purge Gas		None	Flow Rate	None	CFH		
Groove		All	Fillet	NA	Trailing Shielding Gas & Composition		None					
Maximum Pass Thickness		1/2”				Other: N/A						
Other												
FILLER METALS-QW404						ELECTRICAL CHARACTERISTICS-QW409						
F-No.		1.	6	2.	4	Current & Polarity		1.	DCSP	2.	DCRP	
A-No.		1.	1	2.	1	Amps Range		1.	50-150	2.	70-200	
SFA Spec. No.		1.	5.18	2.	5.1	Volts Range		1.	Manual	2.	Manual	
AWS Class No.		1.	ER70S-2	2.	E7018	Tungsten Size		1/16”, 3/32”, 1/8”	Type	EWTh-2		
Size of Filler:						Transfer Mode		1.	N/A	2.	N/A	
1. 1/16”, 3/32”, 1/8”						Pulsing Current		1.	N/A	2.	N/A	
Maximum Weld Deposit Thickness: Little t						Wire Feed Speed		1.	N/A	2.	N/A	
Groove		1.	8”	2.	8”	Other						
Fillet		1.	Unlimited	2.	Unlimited	TECHNIQUE-QW410						
Consumable Insert		None				bString or Weave Bead:						
Other: Addition of filler metal required for GTAW process.						1. Either			2. Either			
						Orifice or Gas Cup Size:		4-10				
						Initial & Interpass Cleaning:		Wire Brush/Grind/Flap/Sand				
						Method of Back Gouging:		Grind/Air or Plasma Arc/Mill				
						Oscillation:		N/A				
						Contact Tube to Work Distance:		N/A				
						Multiple or Single Pass (per side):						
						1. Either			2. Either			
						Multiple or Single Electrodes:		Single				
						Travel Speed Range:						
						1. Manual		ipm	2. Manual		ipm	
						Peening:		Prohibited				
						Other:						
REMARKS:												
Prepared By:						CODE(s) QUALIFIED TO:						
Reviewed By:						CODE USAGE:		ANSI /USAS B31.1, ASME I, III, IV, VIII, XI				
Approved By:						May be applied to other applications as directed by engineering.						

<div> <div> Your    Logo </div> </div>		Your Company Name									
		WPS Number									
		Revision 00									
		Page 2 of 2									
WELD LAYER(s)	WELDING PROCESS	FILLER METAL		GAS			ELECTRICAL DATA			TRAVEL SPEED (IPM)	MAX. BEAD WIDTH (in.)
		SIZE (in.)	AWS CLASS	TYPE	FLOW RATE (CFH)		TYPE/ POLAR.	AMPERAGE RANGE	VOLTS RANGE		
					SHIELD	PURGE					
1, 2, or 3	GTAW	1/16,	ER70S-2	Argon	10-35	None	DCSP	50-150	Manual	Manual	N/A
1, 2, or 3	GTAW	3/32,	ER70S-2	Argon	10-35	None	DCSP	50-150	Manual	Manual	N/A
1, 2, or 3	GTAW	1/8	ER70S-2	Argon	10-35	None	DCSP	50-150	Manual	Manual	N/A
3	SMAW	3/32,	E7018	N/A	N/A	N/A	DCRP	70-110	Manual	Manual	N/A
to	SMAW	1/8,	E7018	N/A	N/A	N/A	DCRP	95-150	Manual	Manual	N/A
Rem.	SMAW	5/32	E7018	N/A	N/A	N/A	DCRP	140-200	Manual	Manual	N/A

Notes and instructions:

- WPS shall be used with General Welding Procedure GWP-1.
- For welding P1 group 3 and group 4 materials consult Welding Engineering.
- For weld repairs and weld buildups, the maximum base material thickness is unlimited. For dissimilar base material thickness', the maximum thickness of the thicker member is unlimited.
- For P1 base metals over 70KSI UTS (see GWP-1 attachment 9.x) engineering must approve use of this procedure.

Sketches:

