

Process			SMAW	GTAW	GMAW / FCAW	SAW	OFW	ESW	PAW
QW-402 Joints									
1	∅	Groove design	N	N	N	N	N	N	S
2	±	Backing					N		
3	∅	Backing composition					N		
4	-	Backing	N		N	N			
5	+	Backing or ∅ chemical composition		N					N
10	∅	Root spacing	N	N	N	N	N	N	N
11	±	Retainers	N	N	N	N		E	N
QW-403 Base Metal									
1	∅	P-Number					E	E	
2		Max. T qualified					E		
4	∅	Group number						S	
5	∅	Group number	S	S	S	S			S
6		T Limits toughness (16 mm min T)	S	S	S	S			S
8	∅	T Qualified	E	E	E	E			E
9		t pass > 1/2 in. (13 mm)	E		E	E		E	
11	∅	P-No. qualified	E	E	E	E			
12	∅	P-Number/melt-in							E
QW-404 Filler Metals									
3	∅	Size		N			N		N
4	∅	F-Number	E	E	E	E	E	E	E
5	∅	A-Number (ferrous materials only)	E	E	E	E	E	E	E
6	∅	Diameter	N		N	N		N	
9	∅	Flux-wire classification				E			
10	∅	Alloy flux				E			
12	∅	Classification SFA	S	S	S		E	S	S
14	±	filler		E					E
17	∅	flux type or composition						E	
18	∅	wire to plate						E	
19	∅	consum guide						E	
22	±	consumable insert		N					N
23	∅	solid or metal cored to flux-cored or v-v		E	E				E
24		± or ∅ supplemental Filler Metal			E	E			
27	∅	Alloy elements from supplemental filler			E	E			E
29	∅	Flux trade designation				N			
30	∅	t	E	E	E	E			E
33	∅	Classification	N	N	N	N		N	N
34	∅	Flux Type neutral or active P#1)				E			
35	∅	Flux-wire classification				S N			
36		Recrushed slag				E			
50	±	GTAW flux to aid penetration		N					
QW-405 Positions									
1	+	Position	N	N	N	N	N		N
3	∅	↑↓ Vertical Welding	N	N	N				N
QW-406 Preheat									
1		Decrease > 100°F (55°C)	E	E	E	E	N		E
2	∅	Preheat maintenance	N		N	N			
3		Increase > 100°F (55°C) (IP)	S	S	S	S			S
QW-407 PWHT									
1	∅	PWHT (none, <A1, >A3, >A1&<A3 or combination)	E	E	E	E	E	E	E
2	∅	PWHT (time & temperature range)	S	S	S	S		S	S

