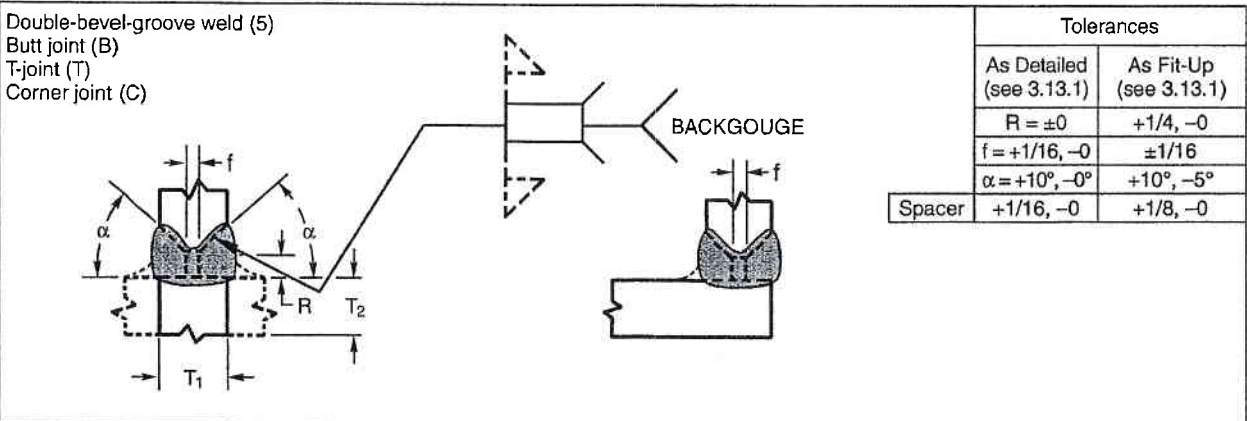


Welding Process	Joint Designation	Base Metal Thickness (U = unlimited)		Groove Preparation			Allowed Welding Positions	Gas Shielding for FCAW	Notes
		T ₁	T ₂	Root Opening Root Face Groove Angle	Tolerances				
					As Detailed (see 3.13.1)	As Fit-Up (see 3.13.1)			
SMAW	TC-U4b	U	U	R = 0 to 1/8 f = 0 to 1/8 α = 45°	+1/16, -0 +1/16, -0 +10°, -0°	+1/16, -1/8 Not limited 10°, -5°	All	—	d, e, g, j, k
GMAW FCAW	TC-U4b-GF	U	U				All	Not required	a, d, g, j, k
SAW	TC-U4b-S	U	U	R = 0 f = 1/4 max. α = 60°	±0 +0, -1/8 +10°, -0°	+1/4, -0 ±1/16 10°, -5°	F	—	d, g, j, k



	Tolerances	
	As Detailed (see 3.13.1)	As Fit-Up (see 3.13.1)
R = ±0		+1/4, -0
f = +1/16, -0		±1/16
α = +10°, -0°		+10°, -5°
Spacer	+1/16, -0	+1/8, -0

Welding Process	Joint Designation	Base Metal Thickness (U = unlimited)		Groove Preparation			Allowed Welding Positions	Gas Shielding for FCAW	Notes
		T ₁	T ₂	Root Opening	Root Face	Groove Angle			
SMAW	B-U5b	U Spacer = 1/8 × R	—	R = 1/4	f = 0 to 1/8	α = 45°	All	—	c, d, e, h, j
	TC-U5a	U Spacer = 1/4 × R	U	R = 1/4	f = 0 to 1/8	α = 45°	All	—	d, e, g, h, j, k
				R = 3/8	f = 0 to 1/8	α = 30°	F, OH	—	d, e, g, h, j, k

Figure 3.4 (Continued)—Prequalified CJP Groove Welded Joint Details (see 3.13) (Dimensions in Inches)