

Table 4.2
WPS Qualification—CJP Groove Welds: Number and Type of Test Specimens and
Range of Thickness and Diameter Qualified (see 4.4) (Dimensions in Inches)

1. Tests on Plate^{1,2}

Nominal Plate Thickness (T) Tested, in.	Number of Specimens				Nominal Plate, Pipe or Tube Thickness ^{3,4} Qualified, in.	
	Reduced Section Tension (see Fig. 4.14)	Root Bend (see Fig. 4.12)	Face Bend (see Fig. 4.12)	Side Bend (see Fig. 4.13)	Min	Max
1/8 ≤ T ≤ 3/8	2	2	2	—	1/8	2T
3/8 < T < 1	2	—	—	4	1/8	2T
1 and over	2	—	—	4	1/8	Unlimited

2. Tests on Pipe or Tubing^{1,7}

Nominal Pipe Size or Diam., in.	Nominal Wall Thickness, T, in.	Number of Specimens				Nominal Diameter ⁵ of Pipe or Tube Size Qualified, in.	Nominal Plate, Pipe or Tube Wall Thickness ^{3,4} Qualified, in.	
		Reduced Section Tension (see Fig. 4.14)	Root Bend (see Fig. 4.12)	Face Bend (see Fig. 4.12)	Side Bend (see Fig. 4.13)		Min	Max
Job Size Test Pipes < 24	1/8 ≤ T ≤ 3/8	2	2	2	—	Test diam. and over	1/8	2T
	3/8 < T < 3/4	2	—	—	4	Test diam. and over	T/2	2T
	T ≥ 3/4	2	—	—	4	Test diam. and over	3/8	Unlimited
≥ 24	1/8 ≤ T ≤ 3/8	2	2	2	—	Test diam. and over	1/8	2T
	3/8 < T < 3/4	2	—	—	4	24 and over	T/2	2T
	T ≥ 3/4	2	—	—	4	24 and over	3/8	Unlimited
Standard Test Pipes	2 in. Sch. 80 or 3 in. Sch. 40	2	2	2	—	3/4 through 4	1/8	3/4
	6 in. Sch. 120 or 8 in. Sch. 80	2	—	—	4	4 and over	3/16	Unlimited

3. Tests on ESW and EGW^{1,8}

Nominal Plate Thickness Tested	Number of Specimens				Nominal Plate Thickness Qualified	
	Reduced Section Tension (see Fig. 4.14)	All-Weld-Metal Tension (see Fig. 4.18)	Side Bend (see Fig. 4.13)	CVN Tests	Min	Max
T	2	1	4	(Note 6)	0.5T	1.1T

- Notes:
1. All test plate, pipe or tube welds shall be visually inspected (see 4.8.1) and subject to NDT (see 4.8.2). One test plate, pipe or tube shall be required for each qualified position.
 2. See Figures 4.10 and 4.11 for test plate requirements.
 3. For square groove welds that are qualified without backgouging, the maximum thickness qualified shall be limited to the test plate thickness.
 4. CJP groove weld qualification on any thickness or diameter shall qualify any size of fillet or PJP groove weld for any thickness.
 5. Qualification with any pipe diameter shall qualify all box section widths and depths.
 6. When specified, CVN tests shall conform to Annex III.
 7. See Table 4.1 for the groove details required for qualification of tubular butt and T-, Y-, K-connection joints.
 8. See Figure 4.9 for plate requirements.