

Table QW-451.2
Groove-Weld Tension Tests and Longitudinal-Bend Tests

Thickness <i>T</i> of Test Coupon Welded, in. (mm)	Range of Thickness <i>T</i> of Base Metal Qualified, in. (mm) [Note (1)] and [Note (2)]		Thickness <i>t</i> of Deposited Weld Metal Qualified, in. (mm) [Note (1)] and [Note (2)]	Type and Number of Tests Required (Tension and Guided-Bend Tests) [Note (2)]		
	Min.	Max.	Max.	Tension, QW-150	Face Bend, QW-160	Root Bend, QW-160
Less than $\frac{1}{16}$ (1.5)	<i>T</i>	2 <i>T</i>	2 <i>t</i>	2	2	2
$\frac{1}{16}$ to $\frac{3}{8}$ (1.5 to 10), incl.	$\frac{1}{16}$ (1.5)	2 <i>T</i>	2 <i>t</i>	2	2	2
Over $\frac{3}{8}$ (10)	$\frac{3}{16}$ (5)	2 <i>T</i>	2 <i>t</i>	2	2	2

NOTES:

- (1) The following variables further restrict the limits shown in this table when they are referenced in QW-250 for the process under consideration: QW-403.9, QW-403.10, QW-404.32, and QW-407.4. Also, QW-202.2, QW-202.3, and QW-202.4 provide exemptions that supersede the limits of this table.
- (2) For combination of welding procedures, see QW-200.4.

Table QW-451.3
Fillet-Weld Tests

Type of Joint	Thickness of Test Coupons as Welded, in.	Range Qualified	Type and Number of Tests Required [Figure QW-462.4(a) or Figure QW-462.4(d)] Macro
Fillet	Per Figure QW-462.4(a)	All fillet sizes on all base metal thicknesses and all diameters	5
Fillet	Per Figure QW-462.4(d)		4

GENERAL NOTE: A production assembly mockup may be substituted in accordance with QW-181.1.1. When a production assembly mockup is used, the range qualified shall be limited to the fillet weld size, base metal thickness, and configuration of the mockup. Alternatively, multiple production assembly mockups may be qualified. The range of thickness of the base metal qualified shall be no less than the thickness of the thinner member tested and no greater than the thickness of the thicker member tested. The range for fillet weld sizes qualified shall be limited to no less than the smallest fillet weld tested and no greater than the largest fillet weld tested. The configuration of production assemblies shall be the same as that used in the production assembly mockup.

Table QW-451.4
Fillet Welds Qualified by Groove-Weld Tests

Thickness <i>T</i> of Test Coupon (Plate or Pipe) as Welded	Range Qualified	Type and Number of Tests Required
All groove tests	All fillet sizes on all base metal thicknesses and all diameters	Fillet welds are qualified when the groove weld is qualified in accordance with either Table QW-451.1 or Table QW-451.2 (see QW-202.2)

GENERAL NOTE: Supplementary essential variables apply when notch toughness is required by other Sections.