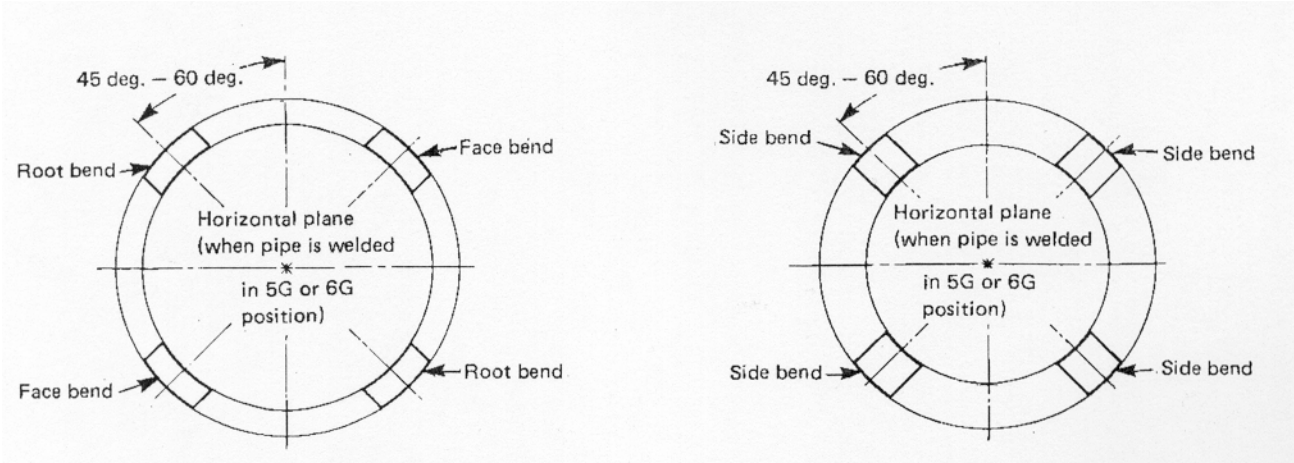


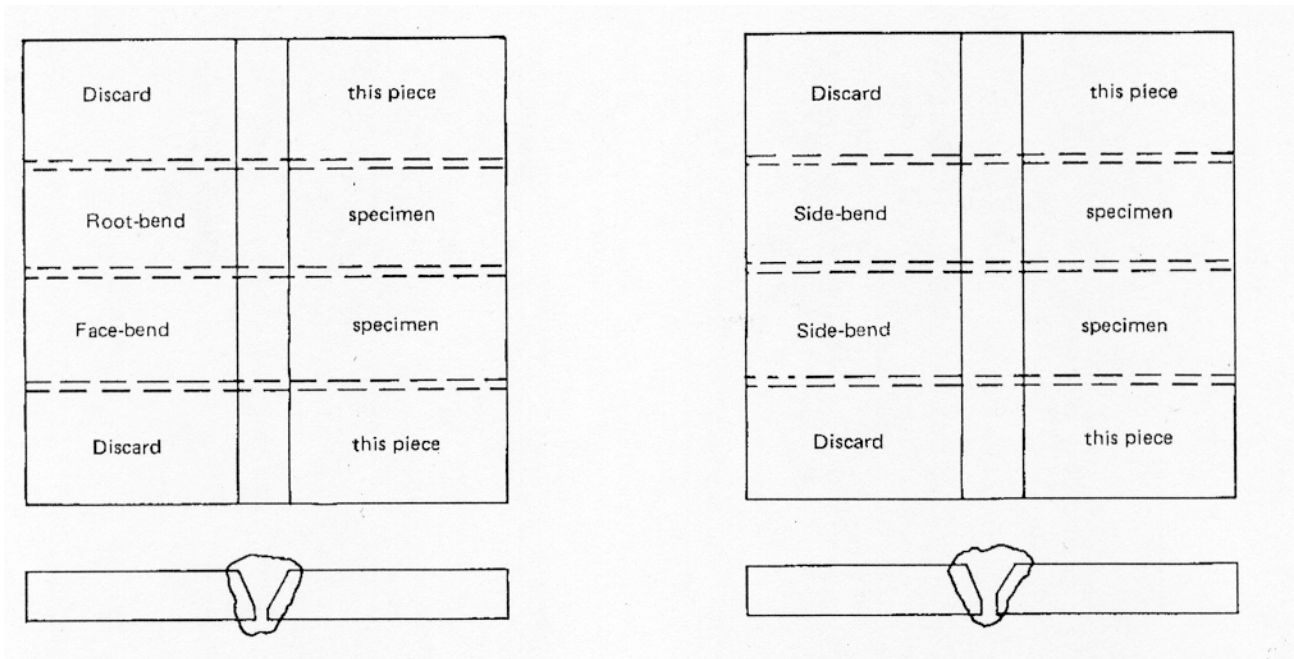
**LOCATION AND PREPARATION OF TEST SPECIMENS**

**ASME IX Destructive Test Specimens**



**Face and Root Bends**

**Side Bends**



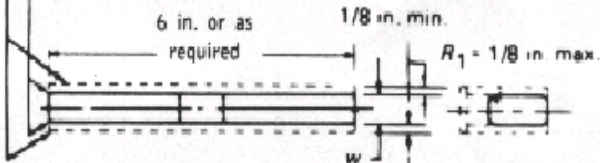
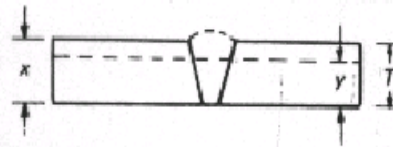
**Face and Root Bends**

**Side Bends**

Specimen Preparation, Side Bends

- (1a) For procedure qualification of materials other than P-No. 1 in QW-422, if the surfaces of the side bend test specimens are gas cut, removal by machining or grinding of not less than 1/8 in. from the surface shall be required.
- (1b) Such removal is not required for P-No. 1 materials, but any resulting roughness shall be dressed by machining or grinding.
- (2) For performance qualification of all materials in QW-422, if the surfaces of side bend tests are gas cut, any resulting roughness shall be dressed by machining or grinding.

T, in.	γ, in.	w (in.)	
		P-No. 23, F-No. 23, or P-No. 35	All other metals
3/8 to 1-1/2, incl.	T	1/8	3/8
> 1-1/2	[Note (1)]	1/8	3/8

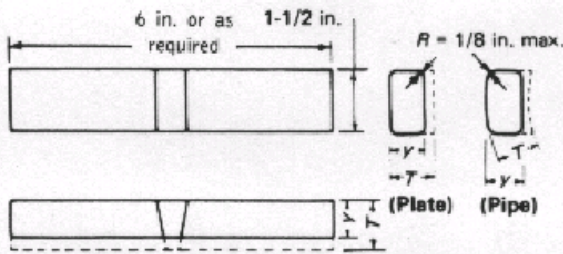


GENERAL NOTE:

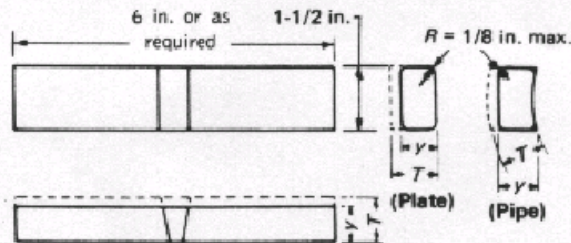
Weld reinforcement and backing strip or backing ring, if any, may be removed flush with the surface of the specimen. Thermal cutting, machining, or grinding may be employed. Cold straightening is permitted prior to removal of the reinforcement.

NOTE:

- (1) When specimen thickness T exceeds 1-1/2 in., use one of the following.
  - (a) Cut specimen into multiple test specimens γ of approximately equal dimensions (3/4 in. to 1-1/2 in.).  
γ = tested specimen thickness when multiple specimens are taken from one coupon
  - (b) The specimen may be bent at full width. See requirements on jig width in QW-466.1.



Face-bend specimen — Plate and Pipe



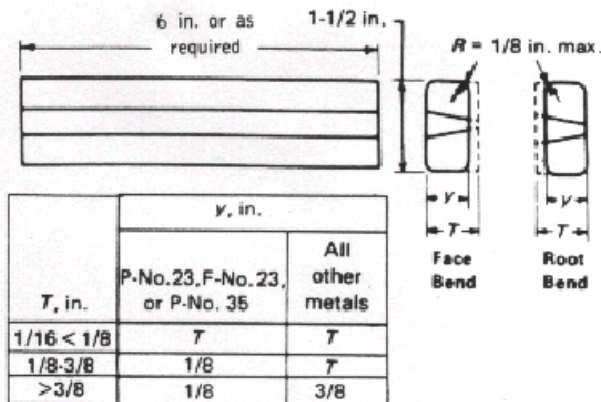
Root-bend specimens — Plate and pipe

T, in.	y, in.	
	P-No. 23, F-No. 23, or P-No. 35	All other metals
1/16 < 1/8	T	T
1/8-3/8	1/8	T
>3/8	1/8	3/8

NOTES:

- (1) Weld reinforcement and backing strip or backing ring, if any, shall be removed flush with the surface of the specimen. If a recessed ring is used, this surface of the specimen may be machined to a depth not exceeding the depth of the recess to remove the ring, except that in such cases the thickness of the finished specimen shall be that specified above. Do not flame-cut nonferrous material.
- (2) If the pipe being tested is 4 in. nominal diameter or less, the width of the bend specimen may be 3/4 in. for pipe diameters 2 in. to and including 4 in. The bend specimen width may be 3/8 in. for pipe diameters less than 2 in. down to and including 3/8 in. and as an alternative, if the pipe being tested is equal to or less than 1 in. nominal pipe size (1.315 in. O. D.), the width of the bend specimens may be that obtained by cutting the pipe into quarter sections, less an allowance for saw cuts or machine cutting. These specimens cut into quarter sections are not required to have one surface machined flat as shown in QW-462.3(a). Bend specimens taken from tubing of comparable sizes may be handled in a similar manner.

QW-462.3(a) FACE AND ROOT BENDS — TRANSVERSE<sup>1,2</sup>

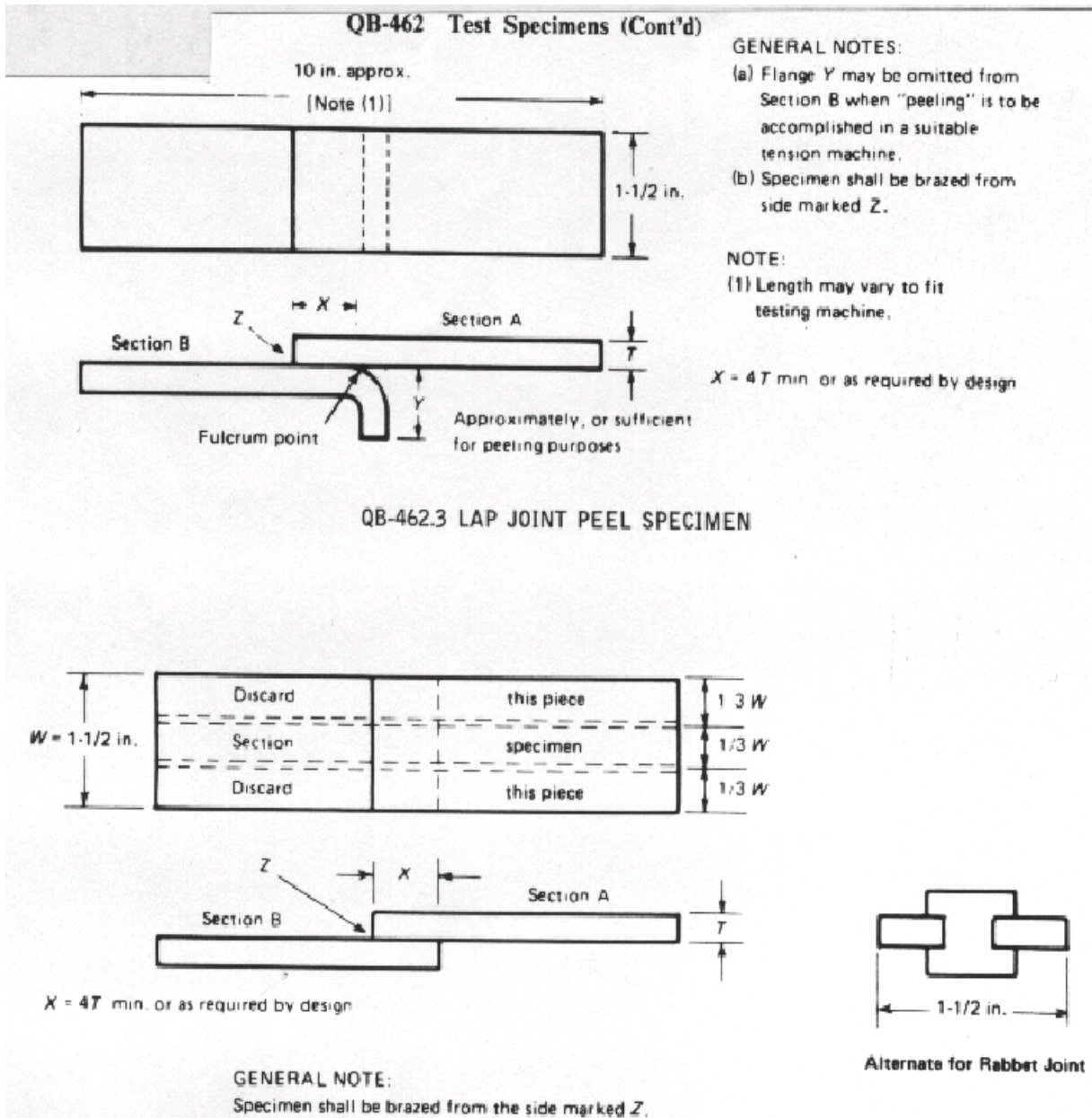


NOTE:

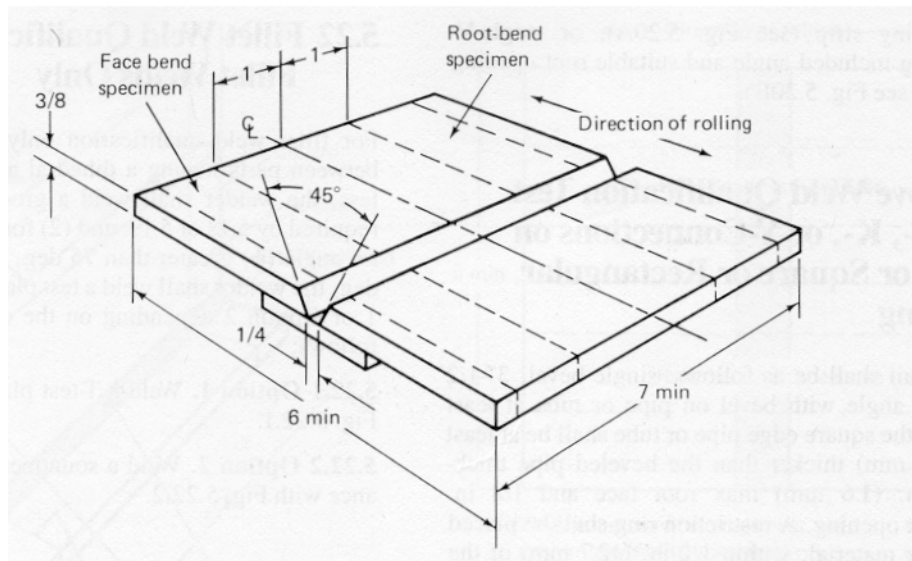
- (1) Weld reinforcements and backing strip or backing ring, if any, shall be removed essentially flush with the undisturbed surface of the base material. If a recessed strip is used, this surface of the specimen may be machined to a depth not exceeding the depth of the recess to remove the strip, except that in such cases the thickness of the finished specimen shall be that specified above.

Specimen Preparation, Face and Root Bends

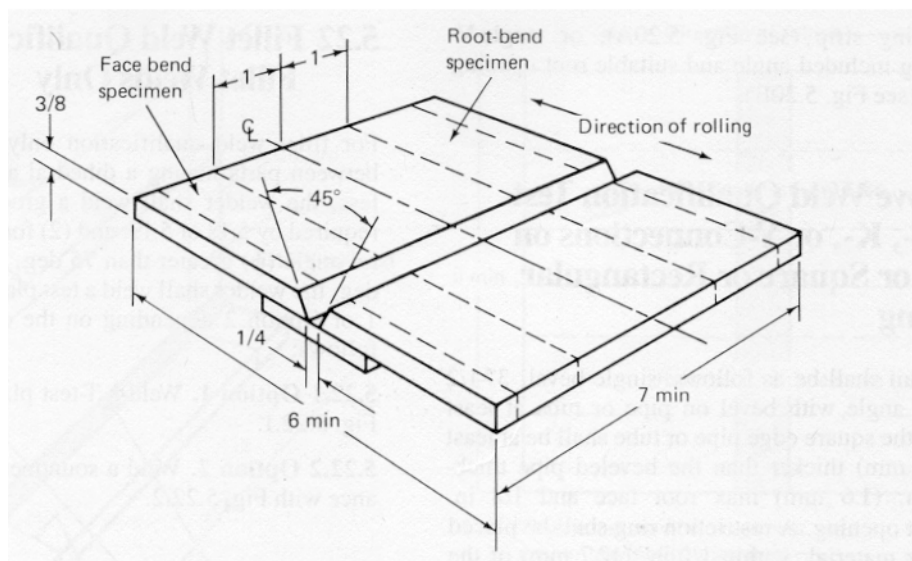
Specimen Preparation Lap Joint, Side Bends



**AWS D1.1 Destructive Test Specimens**



**Test Plate for Unlimited Thickness – Welder Qualification**

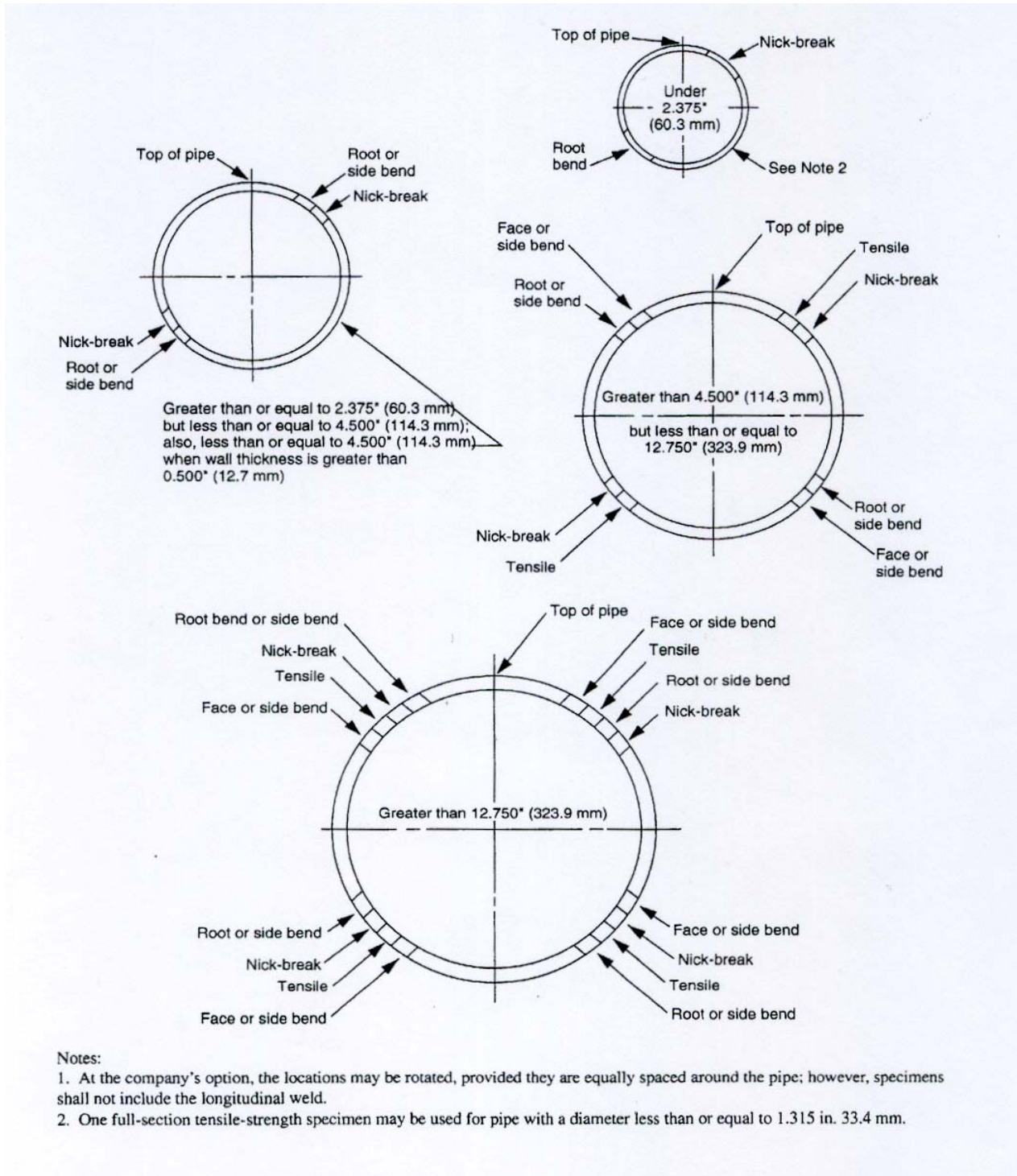


**Test Plate for Limited Thickness – All Position – Welder Qualification**

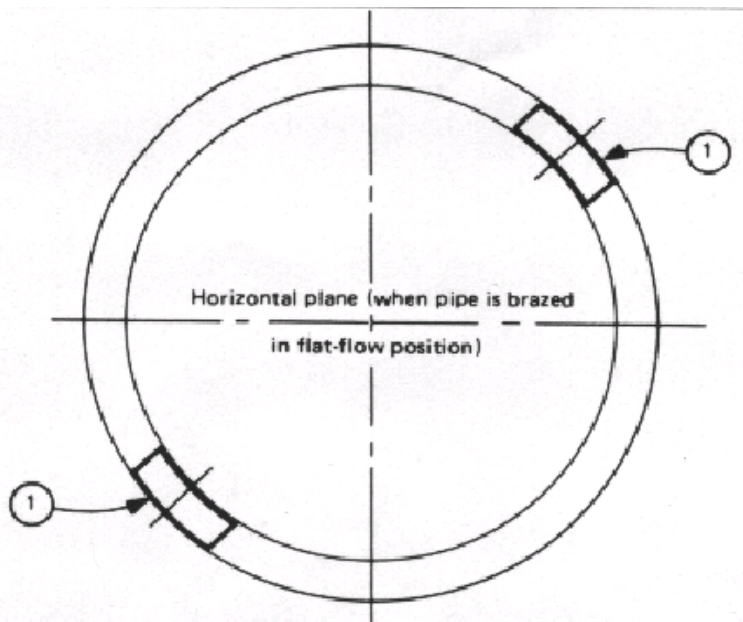
Notes:

1. When radiography is used for testing, no tack welds shall be in the test area.
2. The backing bar thickness shall be 1/4" minimum to 3/8" maximum; backing bar width shall be 3" minimum when not removed for radiography, otherwise 1" minimum.

Location of Test Butt-Weld Specimens, API 1104



**Order of Removal, ASME – Tube – Brazing Welds**



**GENERAL NOTES:**

- (a) Figure shown is for coupons over 3 in. O. D.
- (b) For coupons 3 in. O. D. or less, two coupons are required for peel or section tests. One specimen shall be removed from each coupon. For coupons under 1 in. O. D., the specimen width shall be a one-half section of the test coupon.

**NOTE:**

- (1) Location ① specimens to be:  
 Peel or sectioning specimens for lap joints  
 Sectioning specimens for rabbet joints

