

SEMI F45-0699

GUIDELINE FOR STANDARDIZATION OF MACHINED STAINLESS STEEL REDUCING WELD FITTINGS

This guideline was technically approved by the Global Facilities Committee and is the direct responsibility of the Japanese Facilities Committee. Current edition approved by the Japanese Regional Standards Committee on March 17, 1999. Initially available on www.semi.org May 1999; to be published June 1999.

1 Purpose

1.1 The purpose of this guideline is to prevent confusion among the manufacturers of stainless steel reducing weld fittings, piping fabricators and end users and to standardize the dimensions of weld fittings.

2 Scope

2.1 This guideline applies to 6.35 mm (1/4 in.), 9.53 mm (3/8 in.) and 12.7 mm (1/2 in.); the machined stainless steel reducing weld fittings elbows and tees made for use in the semiconductor industry.

3 Referenced Documents

3.1 None.

4 Terminology

4.1 *reducing elbow weld fittings* — machined fittings shaped like the letter "L", for welding tubes in a right angle. (see Figure 1)

4.2 *reducing tee weld fittings* — machined fittings shaped like the letter "T", for welding tubes in a T-shape. (see Figure 2)

4.3 *reducing weld fittings* — machined fittings to be welded or welded fittings.

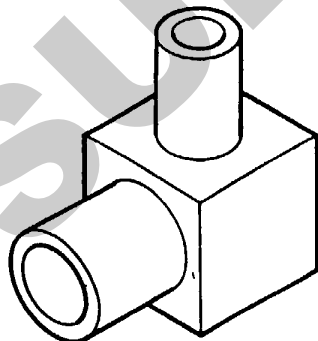


Figure 1
Reducing Elbow Weld Fittings

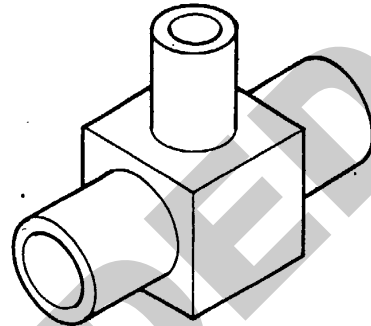


Figure 2
Reducing Tee Weld Fittings

5 Dimensions of Reducing Weld Fittings

5.1 *Reducing Elbow Weld Fittings* (see Figures 3A and 3B)

5.2 *Reducing Tee Weld Fittings* (see Figures 4A and 4B)

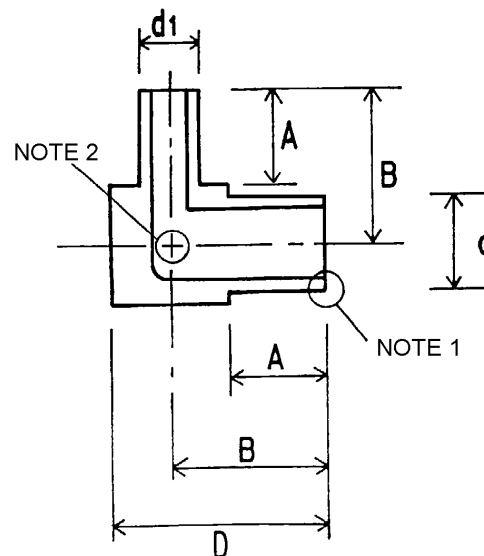


Figure 3A
Dimensions of Reducing Elbow Weld Fittings

NOTE 1: Machined tube weld ends shall be square tolerance $\pm 0.5^\circ$.

NOTE 2: Intersection shall be square tolerance $\pm 0.5^\circ$.

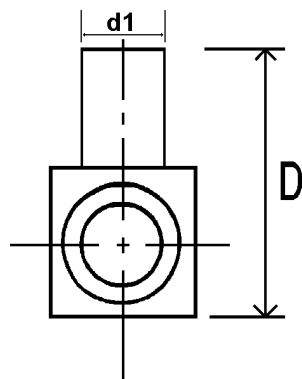


Figure 3B
Dimensions of Reducing Elbow Weld Fittings

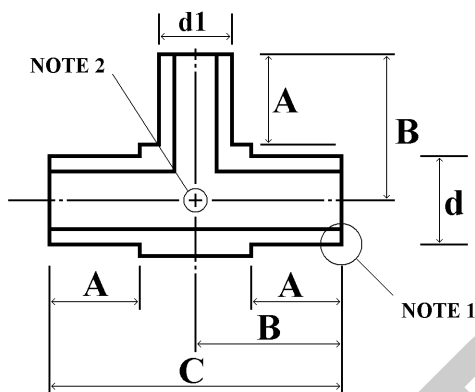


Figure 4A
Dimensions of Reducing Tee Weld Fittings

NOTE 1: Machined tube weld ends shall be square tolerance $\pm 0.5^\circ$.

NOTE 2: Intersection shall be square tolerance $\pm 0.5^\circ$.

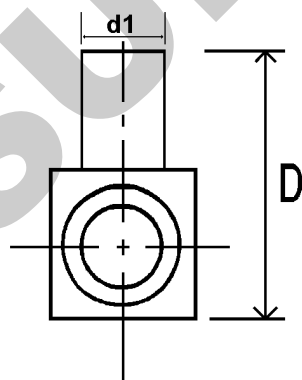


Figure 4B
Dimensions of Reducing Tee Weld Fittings

6 Marking the Reducing Weld Fittings

6.1 Marks include 1), 2), 3), 4), 5), 6) and 7). Marks 1) through 4) shall be made on the reducing weld fittings body. Marks 5) - 7) shall be made on the reducing weld fittings body or its package (both individual bagging and box).

- 1) Manufacturer's name
- 2) Material designator
- 3) Surface finish designator
- 4) Heat Number
- 5) Lot Number (optional)
- 6) Model (Part Number)
- 7) Wall thickness of tube end

6.2 To be agreed upon between supplier and user for marking items and marking locations. The example below explains marking applications. (see Figures 5A and 5B)

6.3 Manufacturer's name, Material designator, Surface finish designator and Heat Number should be marked on the body. The Heat Number shall be marked either on the body of the cube along with the other information, but if space is limited, then the Heat Number marked on the tube Outside Diameter close to the body is permissible.

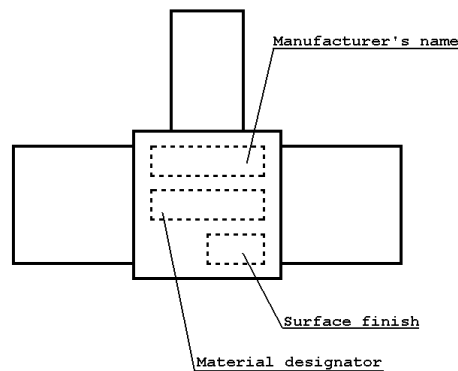


Figure 5A
Marking Application Example