0-8 DISCONTINUITY EVALUATION

(a) Discontinuity Dimensions. The dimension of each discontinuity shall be determined by the rectangle that fully contains the area of that discontinuity. (Refer to Figure O-8-1.)

(1) The length, \( \ell \), of the discontinuity shall be drawn parallel to the inside pressure-retaining surface of the component.

(2) The height, \( h \), of the discontinuity shall be drawn normal to the inside pressure-retaining surface of the component.

(3) The discontinuity shall be characterized as a surface or subsurface discontinuity, as shown in Figure O-8-1.

(4) A subsurface indication shall be considered as a surface discontinuity if the separation \( S \) in Figure O-8-1 of the indication from the nearest surface of the component is equal to or less than half the through-wall dimension \( h \) in Figure O-8-1, illustration (b)\) of the subsurface indication.

(b) Multiple Discontinuities

(1) Discontinuous indications that are oriented primarily in parallel planes shall be considered to lie in a single plane if the distance between the adjacent planes is less than or equal to 0.50 in. (13 mm) or 0.5\( t \), whichever is less.

(2) If the space between two indications aligned along the axis of weld is less than the height of the indication of greater height, the two discontinuities shall be considered a single discontinuity.

(3) If the space between two indications aligned in the through-thickness dimension is less than the height of the indication of greater height, the two indications shall be considered a single discontinuity.

0-9 DISCONTINUITY ACCEPTANCE CRITERIA

Discontinuities shall be evaluated using the applicable criteria of Tables O-9-1 through O-9-3. Regardless of discontinuity height or aspect ratio, discontinuity length shall not exceed 4\( t \).
Figure R-108:
Surface and Subsurface Indications

(a) Surface Discontinuity

(b) Surface Discontinuity

S ≤ 0.5h

(c) Subsurface Discontinuity

S > 0.5h

Sketches (a), (b) & (c) with correct dimension callouts intended for Figure O-8-1