



Important Elements for Determining the Proper Tools in Fine Pitch Wedge Bonding Applications

- Bond Pad Pitch:** The distance between the centers of the bond pads.
- Bond Pad Width:** Affects the selection of the tool “W” dimension.
- Bond Pad Length:** Affects the selection of the tool Bond Length (BL).
- Loop Height:** The most important height is the critical loop height directly adjacent to the side of the wedge.
- Clearance:** This is determined by bonder accuracy, pad pitch, tool selection, and customer preference. The most common minimum clearance is 0.0005 in./13µm.

$$\text{CLEARANCE} = \text{PITCH} - \frac{\text{DSR WIDTH} + \text{WIRE DIAMETER}}{2}$$