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(54) Title: FINE PITCH BONDING TOOL FOR CONSTRAINED BONDING

(57) Abstract

A fine pitch capillary bonding tool for making ball bonds having a consistent bonded ball size even though the air balls may vary in diameter is provided. The conventional shaped bonding tool is provided with a novel ball constraining recess (24) in the working tip (16). When an air ball is bonded it is forced into the constraining recess which has a shoulder portion (26) for exerting a downward bonding force. The ball being bonded extrudes vertically into the constraining recess without lateral extrusion which would create mashed balls of varying diameter.

