

ULTRASONIC WIRE BONDER WITH A SENSOR FOR THE CONTROL OF THE BOND FORCE

ABSTRACT

An ultrasonic wire bonder (1) for the production of wire connections has a rotatable rocker (3) rotating on a horizontal axis (2). On the rocker (3), a horn (5) is attached at the tip (6) of which a capillary (8) guiding the wire (7) is clamped. A sensor (10) for controlling the force acting on the capillary (8) during
5 bonding is arranged on the rocker (3) in the area of the tip (6) of the horn (5). The sensor (10) contactlessly measures the deflection of the tip (6) of the horn (5) in relation to the rocker (3). A correlation exists between the deflection of the tip (6) of the horn (5) and the bond force which is determined by means of a calibration procedure and stored.

(Fig. 1)