

ULTRASONIC TRANSDUCER WITH A FLANGE FOR MOUNTING ON AN ULTRASONIC
WELDING DEVICE, IN PARTICULAR ON A WIRE BONDER

ABSTRACT

The horn (2) of an ultrasonic transducer (1) is applied with ultrasonic waves from an ultrasonic converter (3) in such a way that standing ultrasonic waves develop in the lengthwise direction of the
5 horn (2). A flange (4'; 4'') is arranged on the horn (2) at the location of a node (5) of the ultrasonic waves. The length (L_2' ; L_2'') of the flange (4'; 4'') is so aptly dimensioned that standing ultrasonic waves develop in the flange (4'; 4''), when it can freely oscillate, which also have nodes (10). Drill holes are attached (7; 8) in this node (10) so that the ultrasonic transducer (1) is attachable to an ultrasonic welding device (9), in particular a wire bonder, by means of screws.

10 (Fig. 1a-c)