

ABSTRACT

FLANGED TRANSDUCER HAVING IMPROVED RIGIDITY

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A transducer is provided that comprises a horn that is configured to transmit vibrations along its length during operation in the form of an oscillatory waveform, such oscillatory waveform having a plurality of vibration nodal points. An ultrasonic generator is coupled to one end of the horn and a bonding tool is coupled to an opposite end of the horn for performing bonding operations. A first flange structure is located along the length of the horn at a first vibration nodal point for mounting the transducer, and a second flange structure is located along the length of the horn at a second vibration nodal point for mounting the transducer, such that the second flange structure is separated from the first flange structure by a distance of at least two consecutive vibration nodal points.

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(FIG. 2)