

Title (en)

DEVICE FOR TRANSMITTING ULTRASONIC ENERGY TO A LIQUID OR PASTY MEDIUM

Title (de)

GERÄT ZUR EINKOPPLUNG VON ULTRASCHALL IN EIN FLÜSSIGES ODER PASTÖSES MEDIUM

Title (fr)

APPAREIL A TRANSMETTRE DES ONDES ULTRASONORES A UN MILIEU LIQUIDE OU PATEUX

Publication

**EP 0975440 A1 20000202 (DE)**

Application

**EP 98922766 A 19980423**

Priority

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Abstract (en)

[origin: US6429575B1] A device for transmitting ultrasonic energy to a liquid or pasty medium, comprising an alternating current generator (23) intended to operate in a frequency range of 1 to 100 kHz, a magnetostrictive or piezoelectric transceiver (12) capable of producing under the generator output AC voltage longitudinal high frequency mechanical vibrations, a waveguide (27) in the form of a cylindrical rod capable of being stimulated by said transceiver for generating longitudinal harmonic vibrations, and a cavity resonator (17) acoustically coupled with the waveguide and in a tubular form for converting said longitudinal harmonic vibrations into transversal vibrations relative to the longitudinal axis (14), the wave power of which can be injected into the medium to be submitted to sonicating. Said cavity resonator (11) is designed in such a way the resonance requirement is met both for the longitudinal and transversal self-vibrations of its envelope (18).

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