

Title (en)
ACOUSTIC POWER TRANSMITTING UNIT FOR THERMOACOUSTIC SYSTEMS

Title (de)
SCHALLLEISTUNGSÜBERTRAGUNGSEINHEIT FÜR THERMOAKUSTISCHE SYSTEME

Title (fr)
UNITE DE TRANSMISSION DE PUISSANCE ACOUSTIQUE POUR SYSTEMES THERMOACOUSTIQUES

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Application
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Abstract (en)
[origin: WO2005108768A1] The invention relates to an acoustic power transmitting unit for thermoacoustic systems comprising at least on stage provided with at least two thermoacoustic units (3, 4, 12-16) each of which comprises a regenerator or a stack and two heat exchangers, an acoustic resonator comprising a tube and containing a fluid and in which a magnetic field consisting of high impedance and low-impedance areas is arranged, wherein certain thermoacoustic units (3, 4, 12-16) are placed in high dimensionless impedance areas. According to said invention, each high dimensionless impedance area also comprises a thermoacoustic unit, wherein two successive thermoacoustic units (3, 4, 12-16) are always separated by low dimensionless impedance. The resonator comprises a reduced diameter section (5, 21-23) between each couple of successive thermoacoustic units (3, 4, 12-16) and each cross-sectional narrowing (5, 21-23) is associated with at least one by-pass (6,7) which comprises a deviation cavity (10, 11) and makes it possible to deviate the major part of a volume flow rate.

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