

Title (en)  
FLUIDIC OSCILLATOR

Title (de)  
FLUIDISCHER OSZILLATOR

Title (fr)  
OSCILLATEUR FLUIDIQUE

Publication  
**EP 1753954 A1 20070221 (EN)**

Application  
**EP 05750251 A 20050609**

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Abstract (en)  
[origin: WO2005121539A1] The invention relates to fluidic oscillators including compressed gas driven pumps and liquid piston and thermoacoustic heat engines and heat pumps in which the intention is to generate large amplitude oscillations by eliminating the dependence of the oscillations on inertia. According to the principle embodiment represented by circuit (200) pressure or temperature variations (27') drive pressure variations in vessel (11') causing a flow of further working fluid between vessel (11') and load (12') wherein useful work is consumed. Said flow varies out of phase with said pressure variations in vessel (11') by a first phase angle determined by inter alia the dissipative load (12') and the capacity of vessel (11'). Oscillations are sustained due to a second phase angle determined by inter alia subcircuit (13') comprising dissipative processes (260, 262) and capacitive processes (261, 263) wherein each said dissipative process comprises any one, or combination of the following: viscous drag, thermal resistance or mechanical friction and each capacitive process comprises any one, or combination of the following: hydrostatic pressure change due to a flow, fluid compressibility, thermal capacitance, or elasticity; and wherein, the magnitude of the pressure changes in the working fluid increases or remains constant with time due to at least one mechanism giving rise to a gain.

IPC 8 full level  
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CPC (source: EP KR)  
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