

Title (en)  
ULTRASONIC LIQUID SPRAYER

Publication  
**EP 0282616 B1 19891004 (DE)**

Application  
**EP 87103907 A 19870317**

Priority  
EP 87103907 A 19870317

Abstract (en)  
[origin: US4796807A] An ultrasonic atomizer for liquids comprises a piezoelectric transducer (16) mechanically coupled to an amplitude transformer (20), an atomizing disk (21) mounted to the free end of the amplitude transformer (20), a housing (22) enclosing at least the amplitude transformer (20) and a cap (30) supporting a sieve-like diaphragm (31). The cap (30) is so mounted to the housing (22) that the diaphragm (31) rests on the atomizing disk (21). The cap (30) consists of two mutually concentric cap parts (32, 33) of which one (32) supports the diaphragm (31) and the second (33) serves to mount the entire cap (30) on the housing (22). A spring (36) is so mounted between the two cap parts (32, 33) that the sieve-like diaphragm (31) is held elastically against the atomizing disk (21) and that the opposing force from the spring (36) thereby is transmitted into the second cap part (33) fixed in the housing. Such a liquid-atomizer is characterized in that the diaphragm (31) always rests with a precisely defined prestressing on the atomizing disk (21), whereby operational reliability heretofore not yet achieved with the previous ultrasonic liquid atomizers is obtained.

IPC 1-7  
**B05B 17/06**

IPC 8 full level  
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CPC (source: EP US)  
**B05B 17/0623** (2013.01 - EP US); **B05B 17/063** (2013.01 - EP US)

Cited by  
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