

Title (en)
LIQUID ATOMIZING METHOD AND APPARATUS

Publication
EP 0085583 B1 19890104 (EN)

Application
EP 83300921 A 19830222

Priority
EP 83300921 A 19830222

Abstract (en)
[origin: EP0085583A2] A liquid atomizing method and apparatus in which atomization is achieved through acceleration of a primary air flow injected through an upstream throat (58t) into a diverging passage (61) between the upstream throat (58t) and a downstream throat (68) to create shock waves in the air flow which impact a wall surface adjacent and generally opposed to a confined liquid column to create sonic and/or ultrasonic vibrations which are directed into the confined liquid column to cause the column to fracture into tiny droplets of a narrow size range below 50 microns in diameter. One or more auxiliary air flows may be injected through other upstream throats (60t) into the diverging passage (61) in the flow direction of the primary air flow downstream of the first throat to supply energy to the boundary layer and to enhance acceleration of the primary jet through entrainment. The effective cross-sectional flow area of the downstream throat (68) is between 1.25 and 1.50 times the combined effective cross-sectional flow area of the upstream throats (58t, 60t).

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F23D 11/34; B05B 17/06; G10K 5/02; B06B 3/04; F02M 27/08

IPC 8 full level
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CPC (source: EP)
B05B 11/043 (2013.01); **B05B 17/0692** (2013.01); **F23D 11/34** (2013.01)

Cited by
US5513798A; EP0610853A1; AU684728B2

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EP 0085583 A2 19830810; **EP 0085583 A3 19830914**; **EP 0085583 B1 19890104**; AT E39747 T1 19890115; DE 3378842 D1 19890209

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