

Title (en)
DEVICE FOR GENERATING A PULSATING FLUID JET SUBJECTED TO PRESSURE

Title (de)
VORRICHTUNG ZUM ERZEUGEN EINES PULSIERENDEN MIT DRUCK BEAUFSCHLAGTEN FLUIDSTRAHLS

Title (fr)
DISPOSITIF DE PRODUCTION D'UN JET PULSÉ DE FLUIDE SOUS PRESSION

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Application
EP 12725005 A 20120531

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Abstract (en)
[origin: WO2013020732A1] The invention relates to a device (20) for generating a pulsating fluid jet (16, 18) from fluid subjected to pressure. The device (20) contains a line system (36) having at least one nozzle (38, 40), which has a nozzle orifice (125), from which a fluid jet (16) of fluid subjected to pressure can exit. The device (20) has a chamber (22), in which a pressure wave generation arrangement (24) for generating fluid pressure waves (32) is constructed. The chamber (22) communicates with the line system (36) through an exit opening (34) for the generated fluid pressure waves (32). According to the invention, the device (20) contains an adjusting arrangement (31, 47, 62, 64) for controlling the amplitude AP of the fluid pressure waves (22) in the line system (36) upstream of the at least one nozzle orifice (125). With the adjusting arrangement (31, 47, 62, 64), it is possible to adjust a Helmholtz number $He = L/\lambda$ formed from the quotient of the path length L for the fluid pressure waves (22) in the line system (36) between the exit opening (34) of the chamber (22) and the at least one nozzle orifice (125) of the at least one nozzle (38, 40), and the wavelength λ of the fluid pressure waves (22) formed in the line system (36).

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Citation (examination)
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• EP 0062111 A2 19821013 - HYDRONAUTICS [US]
• US 5154347 A 19921013 - VIJAY MOHAN M [CA]
• US 2005210983 A1 20050929 - KLEIN MARVIN [US], et al
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