

Title (en)

PROCESS FOR CONTROLLING THERMODYNAMIC PROCESSES IN A VORTEX TUBE, VORTEX TUBE FOR CARRYING OUT THE SAID PROCESS AND THE USE THEREOF.

Title (de)

REGELVERFAHREN DER THERMODYNAMISCHEN VORGÄNGE IN EINEM WIRBELROHR, WIRBELROHR ZUR AUSFÜHRUNG DIESES VERFAHRENS SOWIE DIE ANWENDUNG.

Title (fr)

PROCEDE DE REGULATION DE PROCESSUS THERMODYNAMIQUES DANS UN TUBE A TOURBILLONS, TUBE A TOURBILLONS DE MISE EN UVRE DU PROCEDE ET SON UTILISATION.

Publication

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Application

EP 93911550 A 19930222

Priority

RU 9300049 W 19930222

Abstract (en)

[origin: WO9419653A1] A process is proposed for controlling thermodynamic processes in a vortex tube by directing a stream of fluid under pressure into a nozzle inlet (4). In order to obtain the desired characteristics in the cold and hot streams without altering the construction of the tube, the fluid stream in the nozzle inlet (4) is controlled by altering the parameters of state of the thermodynamic processes taking place in the vortex tube. Control of the stream in the nozzle inlet (4) is effected by altering the path length of the stream, by splitting the stream into two rotating streams with their own respective path lengths, or by adjusting the speed, flow-rate and pressure of the stream at the entrance to the nozzle inlet. Controlling the stream in the vortex tube is effected by means of the helix (10) mounted in the cavity of the nozzle inlet (4) in such a way that its position in relation to the inlet stream can be altered, and a baffle (40) situated at the entrance to the inlet aperture (6). The invention can be used in industry, for example in the machining of components, the refrigeration industry and in medicine.

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F25B 9/02

IPC 8 full level

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CPC (source: EP KR)

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Citation (search report)

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