

Title (en)

Influencing the boundary layer on turbomachinery blades

Title (de)

Grenzschichtbeeinflussung bei Turbomaschinenschaufeln

Title (fr)

Méthode pour influencer la couche limite sur des aubes de turbomachines

Publication

EP 0823539 B1 20020410 (DE)

Application

EP 97112247 A 19970717

Priority

DE 19632207 A 19960809

Abstract (en)

[origin: EP0823539A2] The turbo-machine comprises at least one rotor disc supporting several blades and with intermittent flow fluid pulses blowing in the vicinity of the boundary layer detachment area via channels which issue into apertures on blade surface. On the face side of the rotor disc, a stationary ring with at least one through passage aperture is provided, with which the entry apertures in the rotor disc for the blade fluid channels periodically come to cover. In this way, the flow fluid is able to reach the fluid channels from a chamber located in front of the rotor disc in intermittent form as fluid pulses via the at least one through passage aperture. The size and-or the number of through passage apertures in the stationary ring is matched to the required blow-in frequency of the intermittent fluid pulse.

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IPC 8 full level

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