

Title (en)

METHOD FOR DIFFUSING A GAS TURBINE COMPRESSION STAGE, AND DIFFUSION STAGE FOR IMPLEMENTING SAME

Title (de)

VERFAHREN ZUM DIFFUNDIEREN EINER GASTURBINENKOMPRESSIONSSTUFE UND DIFFUSIONSSTUFE ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCÉDÉ DE DIFFUSION D'UN ÉTAGE DE COMPRESSION D'UNE TURBINE A GAZ ET ÉTAGE DE DIFFUSION DE MISE EN OEUVRE

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Application

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Abstract (en)

[origin: WO2012175855A1] The aim of the invention is to produce an airflow by positioning flanges, the shapes of which are optimized. Non-axisymmetrical shapes in the direction of flow and in the tangential direction are thus provided. According to one embodiment, a radial or mixed gas turbine compressor diffusion stage comprises a wheel consisting of two flanges (9) between which the fluid centrifugally or inclinedly flows from the center towards the periphery. Vanes (60) of a grating are distributed among the flanges (9) in order to channel the flow of the fluid between the leading edges (6a) of said vanes (60) on the central side, and the trailing edges on the peripheral side. At least one of the flanges (9) has an inner surface (9i) comprising at least one area (Z1, Z2) having alternating concave (91) and convex (92) curvatures between two adjacent vanes (60), in at least one of two substantially perpendicular directions, namely in the direction of flow (F) along the vanes (60) and in an inter-vane tangential direction.

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