

Title (en)
METHOD FOR ADAPTING THE AIR FLOW OF A TURBINE ENGINE HAVING A CENTRIFUGAL COMPRESSOR AND DIFFUSER FOR IMPLEMENTING SAME

Title (de)
VERFAHREN ZUR ADAPTIERUNG DES LUFTSTROMS EINES TURBINENMOTORS MIT ZENTRIFUGALVERDICHTER UND DIFFUSER ZU SEINER UMSETZUNG

Title (fr)
PROCÉDÉ D'ADAPTATION DE DÉBIT D'AIR DE TURBOMACHINE À COMPRESSEUR CENTRIFUGE ET DIFFUSEUR DE MISE EN OEUVRE

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Abstract (en)
[origin: WO2011128587A1] The invention relates to a method for maintaining the efficiency and duty of a turbine engine compressor in order substantially to reduce the specific consumption Cs, while guaranteeing a high enough pumping margin with partial load. For this purpose, the invention proposes an optimised method for adapting the airflow to a variable demand for flow or mechanical or electric power in a centrifugal compressor of a turbine engine. The method includes diffusing the airflow (F) through a first annular blade ring (G1) having variable-pitch blades (24), radially bordered by a second annular blade ring (G2) having the same number of fixed-pitch blades (28) with an equivalent extension, guiding the radial extension diffusion by coupling the blades (24, 28) of the two blade rings. According to said method, each blade (24) of the first blade ring (G1) is spun off-axis.

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