

Title (en)

ROTOR FOR A ROTARY MACHINE AND A ROTARY MACHINE

Title (de)

ROTOR FÜR EINE STRÖMUNGSMASCHINE UND EINE STRÖMUNGSMASCHINE

Title (fr)

ROTOR POUR UNE TURBOMACHINE ET TURBOMACHINE POURVUE DUDIT ROTOR

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Application

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Abstract (en)

[origin: US2009022585A1] The invention relates to a rotor for a rotary machine and to a rotary machine equipped with said rotor, wherein the rotor revolves in a gaseous or liquid medium and has, at least on one of its lateral surfaces, a profile with at least one convex elevation for producing a pressure difference. This rotor is characterized by the fact that the convex elevation is formed as an airfoil profile of an aircraft, and the rotor has an axial cavity on the inside. In this case, the rotor is connected to at least one chamber for guiding the medium provided in or away, wherein at least one passage opening is provided between the cavity and the outer lateral surface in the region of the airfoil profile. Such a rotor within different housing formations forms a rotary machine, which can be used as a pump, a compressor, a condenser, a blower, a turbomachine, a turbine or as a pressure neutralizer.

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