

Title (en)

METHOD FOR MANUFACTURING AN IMPELLER OF A RADIAL TURBOMACHINE AND IMPELLER

Title (de)

VERFAHREN ZUR ERZEUGUNG EINES LAUFRADS EINER RADIALTURBOFLUIDENERGIEMASCHINE UND LAUFRAD

Title (fr)

PROCÉDÉ POUR PRODUCTION D'UNE ROUE D'UNE TURBOMACHINE RADIALE ET ROUE

Publication

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Application

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Abstract (en)

[origin: WO2016074889A1] The invention relates to an impeller (IMP) of a radial turbo fluid energy machine (RTF), comprising - a wheel disc (SW), a cover disc (CW), - blades (BL), and - a hub (HB). The hub (HB) is designed to be mounted on a shaft (SH) which extends along an axis (X), the wheel disc (SW) extends substantially radially from the hub (HB), and the cover disc (CW) is connected to the wheel disc (SW) by means of the blades (BL) such that flow channels (FC) which are separated from one another in the circumferential direction are defined by the blades (BL) between the wheel disc (SW) and the cover disc (CW) in the circumferential direction in at least one radial region of the impeller (IMP). The impeller (IMP) has a first flow passage (O1) in a substantially axial direction in the radial proximity of the hub (HB), and the impeller (IMP) has a second flow passage (O2) in a substantially radial direction radially farther away from the hub (HB) than the first flow path passage (O1). In order to reduce flow losses while simultaneously optimizing the production complexity, the cover disc (CW) surface facing the wheel disc (SW) has a lower degree of roughness at least in some regions than the wheel disc (SW) surface facing the cover disc (CW). The invention further relates to a corresponding stage, to a method for producing a component around which a fluid flows, and to a component produced in a corresponding manner.

IPC 8 full level

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