

Title (en)

RETURN CHANNEL OF A MULTISTAGE TURBOCOMPRESSOR OR TURBOEXPANDER WITH ROUGH WALL SURFACES

Title (de)

RÜCKFÜHRSTUFE EINES MEHRSTUFIGEN TURBOVERDICHTERS ODER TURBOEXPANDERS MIT RAUEN WANDOBERFLÄCHEN

Title (fr)

CANAL DE RETOUR D'UN TURBOCOMPRESSEUR OU TURBODÉTENDEUR À PLUSIEURS ÉTAGES AVEC PAROIS RUGUEUSES

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Application

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Abstract (en)

[origin: WO2016050669A1] The invention relates to a return stage (RS) of a radial turbo fluid energy machine, in particular of a radial turbo compressor (TCO), having an axis of rotation (X), the return stage (RS) comprising an annular flow channel (CH) for feeding a flowing process fluid (PF) from a flow opening of a first impeller (IMP1) to a flow opening of a second impeller (IMP2) arranged downstream. In order to increase efficiency, the flow channel (CH) according to the invention is defined by bounding surface areas (SFA), of which at least one certain rough area extending in the circumferential direction has a surface roughness (RZ) that is increased in relation to the other areas.

IPC 8 full level

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