

Title (en)

METHOD FOR MANUFACTURING AN INTEGRAL ROTATIONALLY SYMMETRICAL METAL PART INCLUDING A REINFORCEMENT CONSISTING OF CERAMIC FIBERS

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES ROTATIONSSYMMETRISCHEN EINTEILIGEN METALLTEILS MIT EINER VERSTÄRKUNG AUS KERAMIKFASERN

Title (fr)

PROCÉDÉ POUR FABRIQUER UNE PIÈCE MÉTALLIQUE DE RÉVOLUTION MONOBLOC INCORPORANT UN RENFORT DE FIBRES CÉRAMIQUES

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Application

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Abstract (en)

[origin: WO2012117213A1] The invention relates to a method for manufacturing an integral rotationally symmetrical part, which includes producing a blank of the part around a cylindrical mandrel, the blank including at least one fibrous structure made of composite ceramic fibres coated with metal, followed by the diffusion-welding treatment of the blank by hot isostatic pressing, and optionally machining the thus-treated blank in order to obtain the part. According to the invention, the method is characterised in that the blank includes at least a first metal-wire layer (6) between the mandrel (10) and said composite fibrous structure (7), and at least a second metal-wire layer (8) arranged around said composite fibrous structure so as to cover the latter.

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