

Title (en)
METHOD OF MANUFACTURING VARIABLE VANE

Title (de)
VERFAHREN ZUR HERSTELLUNG EINER VERSTELLBAREN LEITSCHAUFEL

Title (fr)
PROCEDE DE FABRICATION D'UNE AUBE A INCIDENCE VARIABLE

Publication
EP 2343441 B1 20151223 (EN)

Application
EP 09819268 A 20091009

Priority
• JP 2009067621 W 20091009
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Abstract (en)
[origin: EP2343441A1] The present invention provides a variable vane manufacturing method capable of setting the dimensions of a shaft unit and a blade unit with desired dimensional precisions without any machining. A sinter is prepared such that the height of a blade unit 2 ranges within +0.3% to +0.9%, the thickness of the blade unit 2 ranges within - 0.6% to -0.0%, the diameter of a shaft unit 3 ranges within +0.3% to +0.9%, the length from the lower end of the blade unit 2 to the lower end of the shaft unit 3 ranges within - 0.6% to -0.0% with respect to the target dimensions of a final product, and a sintering density is 95% or more of a relative density. The height and thickness of the blade unit 2 in the sinter are set to desired product dimensions in a first pressing process at the same time; the coaxiality between the blade unit 2 and the shaft unit 3 is set to a desired product dimension in a second pressing process; and the roundness of the shaft unit 3 is set to a desired product dimension in a third pressing process.

IPC 8 full level
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Cited by
EP3779123A4; EP2607396A1; US9309383B2; US9249292B2; US11661861B2

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