

Title (en)
TURBOMACHINE GUIDE VANES WITH IMPROVED VANE PROFILE

Title (de)
TURBOMASCHINENLEITSCHAUFELN MIT VERBESSERTEM SCHAUFELPROFIL

Title (fr)
REDRESSEUR DE TURBOMACHINE AVEC AUBES À PROFIL AMELIORE

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Application
EP 13744667 A 20130628

Priority

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Abstract (en)
[origin: WO2014006310A1] The invention relates to a set of turbomachine guide vanes comprising a plurality of vanes arranged around an annulus, each vane having a leading edge and extending between a root end and a tip end, the leading edge at the root end of each vane being positioned upstream of the leading edge at the tip end of the vane with respect to the direction in which the air flows, the leading edge offset between these two ends being greater than 10% of the height of the blade. This main feature is also combined with a tangential stacking of the set of guide vanes towards the suction face side, the set of guide vanes being characterized in that the curve of tangential stacking, which consists of the position, in the direction tangential to the annulus, of the centres of gravity of successive vane cross sections along the height of the vane, is a curve that increases constantly towards the suction face side of the vane, and in that said curve, near the tip end of a vane, has an accentuated gradient towards the suction face side in comparison with the rest of said curve, and in that said curve has a mean gradient near the tip end of the vane that is greater than at least 1.2 times the mean gradient of the curve over the portion comprised between 30% and 90% of the height of the vane.

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