



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : F04D 29/38	A1	(11) International Publication Number: WO 99/49224 (43) International Publication Date: 30 September 1999 (30.09.99)
(21) International Application Number: PCT/IB99/00459 (22) International Filing Date: 18 March 1999 (18.03.99) (30) Priority Data: 98830169.3 23 March 1998 (23.03.98) EP (71) Applicant (for all designated States except US): SPAL S.R.L. [IT/IT]; Via per Carpi, 26/B, I-42015 Correggio (IT). (72) Inventor; and (75) Inventor/Applicant (for US only): SPAGGIARI, Alessandro [IT/IT]; Via L. Da Vinci, 8, I-42015 Correggio (IT). (74) Agent: LANZONI, Luciano; Bugnion S.p.A., Via Goito, 18, I-40126 Bologna (IT).		(81) Designated States: AU, BR, CA, CN, CZ, HU, ID, IL, IN, JP, KR, MX, PL, RO, RU, SG, SK, TR, UA, US. Published With international search report.
(54) Title: AXIAL FLOW FAN (57) Abstract The axial flow fan (1) comprises a central hub (3), a plurality of blades (4), each blade (4) having a root (5) and an end (6) and being delimited also by a convex edge (7), whose projection onto the plane of rotation of the fan is defined by a parabolic segment, and by a concave edge (8) whose projection onto the plane of rotation of the fan is defined by a circular arc. The blades (4) consist of sections having aerodynamic profiles (18) with a face (18a) comprising at least one initial straight-line segment (t) and a blade angle (β) that decreases gradually and constantly from the root (5) towards the end (6) of the blade (4) according to a cubic law of variation as a function of the fan radius.		