"FLOW-STRAIGHTENER VANE MADE OF COMPOSITE, FLOW-STRAIGHTENER INCLUDING IT, FOR A COUNTER-TORQUE DEVICE WITH DUCTED ROTOR AND DUCTED FLOW-STRAIGHTENING STATOR, AND METHOD FOR MANUFACTURING THEM".

EUROCOPTER FRANCE

ABSTRACT

The composite vane (9) is moulded by injecting resin into a preform of layers of reinforcing fibres according to the RTM method. The skins of its main vane section as well as of its root (17) and tip (18) via which it is connected to the flow-straightener central body (14) and to part (12) of the duct are laminated with a pile of at least three layers of reinforcing fibres, and complementary piles at the root (17) and tip (18) exhibit at least one fastening tab. The central body (14) is made of metal or composite and the composite vanes (9) are interchangeable, or the vanes (9) and the central body (14) are injection-moulded as a single piece using the RTM method.