

Title (en)
VENTURI ENHANCED AIRFOIL

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Application
EP 88907492 A 19880623

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Abstract (en)
[origin: WO8810210A1] A basic airfoil has its operating performance improved by incorporating one or more apertures in the airfoil adjacent its trailing edge. These apertures (24) extend from the upper surface (18) of the airfoil down through to the lower surface (20) of the airfoil. The entry port (25) and the exit port (26) of these apertures (24) has a greater circumference than that of the throat (27) circumference which is intermediate thereto. This structure forms a venturi having a vertical axis. Spaced below the throat (27) of the aperture (24) are a plurality of air nozzles (30) that communicate with an air plenum chamber (32) within the airfoil. A source of pressurized air (35) is connected to the plenum chamber (32). The venturi enhanced airfoil can be utilized both in a horizontal fixed airfoil or its structure can also be incorporated into the tail rudder (53) of an aircraft or helicopter. The venturi enhanced airfoil can be oriented in any position between the horizontal and vertical axes.

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