

METHOD FOR OPTIMISING THE SHAPE OF AN AEROFOIL AND CORRESPONDING AEROFOIL

Abstract

A method for defining the shape of an edge of an aerofoil comprises the following steps: obtaining a starting value for the thickness of the edge; defining a distance from the edge of the aerofoil in terms of the thickness; over the defined distance, defining a space S in terms of normalised camberline and normalised thickness; transforming the space S to a new space S' ; parameterising the new space S' to obtain new values for normalised camberline and normalised thickness; defining a new shape for the edge using the new parameter values. In a preferred embodiment, the transforming step comprises applying a parabolic function to the space S .

Fig. 4(a)