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(54) Title: A FLUID PROPULSION SYSTEM FOR ACCELERATING AND DIRECTIONALLY CONTROLLING A FLUID

(57) Abstract

A propulsion system for accelerating and directionally controlling a fluid having a continuous dynamic surface (40) for circulating through a fluid from an entrainment region (44) where fluid is introduced to the dynamic surface (40) to a thrust region (46) where fluid is discharged from the dynamic surface (40). The dynamic surface (40) accelerates the fluid proximate to the surface so as to produce a layer of accelerated fluid from the entrainment region (44) through the thrust region (46). A motor is operatively connected to the dynamic surface (40) for driving the dynamic surface (40). A separator plate (60) is positioned next to the dynamic surface (40). The separator plate (60) has a leading edge (62) for stripping the layer of accelerated fluid from the dynamic surface (40) and a substantially flat thrust face (64) adjacent to the leading edge (62) for directing the accelerated fluid in a desired direction. The separator plate (60) is positionable with respect to the dynamic surface (40) such that the edge (62) is generally in close proximity to the dynamic surface (40), and the thrust face (64) is substantially tangential to the dynamic surface (40) for at least a portion of the thrust region (46).

