

Title (en)  
CROSS-FLOW FAN

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Application  
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Abstract (en)  
[origin: US4836743A] The purpose of the invention is a cross flow fan comprising an convergent inlet (2,3,10), an impeller (1) or rotor provided with blades and a divergent (4) delimited by a downstream face (12) of the scroll element and a downstream face (9) of the cross-head element. The inlet and divergent delimit two narrowing longitudinal passages (13, 14). With respect to a reference system of perpendicular axes x and y, the origin of which is located on the axis of rotation of the impeller (1) and whose abscissa X axis is parallel to the downstream face (9) of the cross-head element, it features: an upstream leading edge (6) of the cross-head element describing an angle included between 290 DEG and 330 DEG at a distance from the impeller or an air gap (13) included between 2 and 8% of the outside diameter De of the impeller, a face (7) of the cross-head element describing an angle, the apex of which is one and the same with upstream leading edge (6) of the cross-head, included between -20 DEG and 60 DEG , a rectilinear scroll leading edge (11) describing an angle included between 76 and 112% at a distance from the impeller, or an air gap (14) included between 2 and 8% of outside diameter De of the impeller, a plane upstream face (b 10) concurrent with leading edge (11) of the scroll, inclined with respect to the plane connecting the rotation axis of the impeller and the scroll leading edge (11). The invention applies to the sustentation of hovercraft.

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