

Title (en)  
CENTRIFUGAL FLUID MACHINE

Title (de)  
KREISELMASCHINE FÜR FLUIDE

Title (fr)  
MACHINE À FLUIDE CENTRIFUGE

Publication  
**EP 2789861 A1 20141015 (EN)**

Application  
**EP 12856231 A 20120608**

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Abstract (en)  
Provided is a centrifugal fluid machine in which flow separation due to the inconsistency in angles between a flow discharged from an impeller and a flow at vane inlet is suppressed and in which the performance of a bladed diffuser is enhanced. The present invention is a centrifugal compressor that is provided with a plurality of blades and an impeller having the plurality of blades; and a diffuser (21) that is provided on a downstream of the impeller and that has a plurality of vanes (24) between a shroud-side wall surface (22) and a hub-side wall surface (23) that face each other, and that is configured so that a fluid that is pressurized by means of rotation of the impeller flows out by passing through the diffuser (21), and the centrifugal compressor is provided with one or plurality of working fluid injection ports (25) that form openings at the hub-side wall surface (23) and that inject the working fluid in a main flow direction along pressure surfaces (24a) of the vanes (24), wherein the working fluid injection ports (25) are provided at radial positions closer to leading edges of the vanes (24) than to a throat radius (R2).

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