

Title (en)
SCREW ROTOR AND SCREW TYPE FLUID MACHINE

Title (de)
SCHRAUBENROTOR UND SCHRAUBENFLUIDMASCHINE

Title (fr)
ROTOR EN FORME DE VIS ET MACHINE À FLUIDES DE TYPE À VIS

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Application
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Abstract (en)
The object of the invention is to provide a screw type fluid machine in which leak of gas is kept in constant, in other words, in which a gap between the screw rotors is kept substantially in constant in a discharging chamber during operation. In a screw type fluid machine, screw rotor having a cross-sectional shape (805) of a tooth profile with respect to an axial direction thereof includes an arc (1) forming a dedendum portion, and an arc (3) forming an outer circumferential portion, wherein one (5) of two curves connecting the outer circumferential portion and the dedendum portion is defined by a trochoid curve created based on a point on an outer circumference of a mating screw rotor and the other of these two curves, which is divided equally into two sections constituted by a section between a pitch circle and the outer circumferential portion and a section between the pitch circle and the dedendum portion, is defined by a predetermined curve for one (7) of the sections and a fitting curve for the other (9) of the sections that is created so as to correspond to the predetermined curve for the one of the sections divided equally into two in the mating screw rotor during meshing.

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