

Title (en)
VORTEX COMPRESSOR

Title (de)
WIRBELSTROMVERDICHTER

Title (fr)
COMPRESSEUR A VORTEX

Publication
EP 0646728 B1 19980812 (EN)

Application
EP 94905268 A 19931227

Priority
• RU 9300315 W 19931227
• RU 92001513 A 19921229

Abstract (en)
[origin: WO9415101A1] A vortex compressor comprises a housing (1) which is provided with an annular operating channel, an inlet port (2) and a discharge port (3) connected to the annular operating channel, and a cut-off (4) situated between the inlet port (2) and the discharge port (3). The disk (5) of the operating wheel mounted in the housing (1) is provided with a vane rim (6) accommodated in the annular operating channel. The housing (1) and cut-off (4) are provided with interconnecting openings (7 and 8) which are arch-shaped and equidistant from the vane rim (6). The inlet and outlet edges of the vane rim (6) are arranged coaxially at the edge of the lateral face of the disk (5). The inlet port (2) is in the form of an opening which is bow shaped and equidistant from the vane rim (6) and situated towards the inlet edges of the vanes, while the opening (7) in the housing (1) and the opening (8) in the cut-off (4) are situated towards the outlet edges of the vanes. The opening (7), the opening of the inlet port (2) and the cut-off are arranged in three segments on a plane perpendicular to the axis of rotation of the disk (5). The segment of the opening of the inlet port (2) is adjacent to the segment of the cut-off (4). Part of the segment of the cut-off (4) coincides with the segment of the opening in the housing, and the opening (8) in the cut-off (4) is situated in the part of the segment of the opening (7) of the housing (1) which coincides with segment of the cut-off (4).

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