

Title (en)
DISPLACEMENT MACHINE BASED ON THE SPIRAL PRINCIPLE

Title (de)
VERDRÄNGERMASCHINE NACH DEM SPIRALPRINZIP

Title (fr)
MACHINE DE REFOULEMENT CONSTRUITE SELON LE PRINCIPE DE LA SPIRALE

Publication
EP 1088153 B1 20041229 (DE)

Application
EP 00901476 A 20000210

Priority
• CH 0000077 W 20000210
• CH 31399 A 19990218

Abstract (en)
[origin: WO0049275A1] A displacement machine for compressible media has two spiral feed chambers (11a, 11b) that are arranged opposite each other in a fixed housing (7a, 7b). Spiral displacement bodies (2-4) engage with these feed chambers. Said displacement bodies essentially consist of a disc (2) and spiral strips (3a, 3b) that are attached to each side of the disc. The strips are configured in an eccentric manner in relation to the housing, so that during operation each point on the displacement body carries out a circular or elliptical movement, depending on the type of guiding device (49). This movement is restricted by the cylinder walls of the feed chamber. One feed chamber (11a) is configured for compressing the working substance and the other feed chamber (11b) for expanding said substance. The feed chambers and the strips (3a, 3b) that engage with said chambers consist of successive circular arc segments. The radii of the circular arc segments in the feed chambers on the compression side (11a) decrease in size when viewed from the direction of rotation. The radii of the circular arc segments in the feed chambers on the expansion side (11b) increase in size, when viewed from the same direction of rotation.

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