Title (en)

TWIN SCREW ROTORS AND DISPLACEMENT MACHINES CONTAINING THE SAME

Title (de)

ZWILLINGSSCHRAUBENROTOREN UND SOLCHE ENTHALTENDE VERDRÄNGERMASCHINEN

Title (fr)

ROTORS A VIS JUMELLES ET MACHINES VOLUMETRIQUES LES CONTENANT

Publication

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Application

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Priority

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Abstract (en)

[origin: WO0208609A1] The twin screw rotors for axially parallel instalment in displacement machines for compressible media have asymmetrical transverse profiles and arc numbers which are >/= 2. The pitch (L) varies according to the angle of contact (alpha), increasing in a first partial area (T1) from the suction-side screw end, reaching a maximum value (Lmax) after completing an arc, decreasing in a second partial area (T2) until it reaches a minimum value (Lmin) and being constant in a third partial area (T3). The pitch curve in the first partial area (T1) is preferably mirror-symmetrical to that in the second partial area (T2); within the partial areas T1 to T2, the pitch curve is point-symmetrical to the average values in almost all cases, respectively. As a result, it is possible to obtain compact screw rotors which are completely free of unbalance, with compression rates of 1.0...10.0, even without profile variation. Rotors of this type offer excellent preconditions for reducing energy requirements, temperature, construction space and costs and for the free choice of materials, with applications in chemistry, pharmacy, packaging and semiconductor technology.

IPC 8 full level

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