Title (en)

SCREW ROTOR SET

Title (de)

SCHRAUBENROTORSATZ

Title (fr)

JEU DE ROTORS FILETES

Publication

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Application

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Abstract (en)

[origin: WO9811351A1] Known designs of single-thread screw rotors in single-piece cast iron constructions having wrap angles of >720 degrees with balancing cavities on the face of the screw operate with no unbalance at average rotary frequencies of (SIMILAR 3000 min<-1>). The use of a pump in processes having sensitive purity and maintenance requirements or working with corrosive substances or where limited space is available and quality is demanded, brings about problems for rotor designing and balancing, which the present invention solves. An uneven mass distribution is accomplished by constructing the rotors with several single parts inside the rotor, by forming cavities and/or by choosing the adequate material, which, combined with the screw length/pitch ratio, cause a static and dynamic balancing. Screw rotors designed as described offer several advantages since they are easy to assemble and have a compact and stable construction. Moreover, they can be used in pumps for the food industry, chemistry, medicine and semi-conductor construction due to the flexibility in material and to the smooth surfaces free from cavities.

IPC 1-7

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IPC 8 full level

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