

Title (en)  
MULTISTAGE ROOTS VACUUM PUMP

Publication  
**EP 0368122 B1 19930224 (FR)**

Application  
**EP 89120179 A 19891031**

Priority  
FR 8814494 A 19881107

Abstract (en)  
[origin: EP0368122A1] Multi-stage roots vacuum pump comprising a stator defining a plurality of successive compression chambers (5) separated axially from one another by lateral flanges (1), and a rotor assembly arranged inside the stator and consisting of two parallel shafts (8, 9) supported by bearings (11, 12) in end flanges (2, 3) of the stator, each shaft (8, 9) being equipped in each chamber (5) with a compression lobe (13, 14), each chamber (5) thus containing two paired compression lobes (13, 14), one (8) of the two shafts being driven in rotation by a motor (15) and the other shaft (9) being driven in the opposite direction by means of a gear (17-18) located in a housing (6) fixed to the corresponding end flange (2) of the stator, the two shafts (8, 9) each passing through the said flange (2) via a lip gasket (19, 20), characterised in that a sealing module (24) is interposed between the said end flange (2) located on the same side as the said housing (6) and the compression chamber adjacent to the said housing, the said module (24) forming a partition equipped, round each shaft (8, 9), with the fixed part (25, 26) of a labyrinth gasket, each shaft being provided with the moveable complementary part (27, 28) of the labyrinth gasket, the said moveable parts of the labyrinth gaskets being located in a common cavity (31) of the said module which is connected, by means of a valve (32, 33), to the delivery channel (23) of the said compression chamber adjacent to the said housing, the said valve allowing fluid to pass in the direction of the said cavity (31) towards the said delivery channel. <IMAGE>

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IPC 8 full level  
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CPC (source: EP US)  
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Cited by  
FR2685392A1; US5364245A; WO9214060A1; WO0194793A1

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