

Title (en)
Oil-free scroll vacuum pump

Title (de)
Ölfreie Spiralvakuumpumpe

Title (fr)
Pompe à vide à spirales sans lubrification

Publication
EP 0798463 A3 19980225 (EN)

Application
EP 97105399 A 19970401

Priority
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Abstract (en)
[origin: EP0798463A2] A double-lap oil-free scroll vacuum pump is disclosed, which comprises a revolving scroll 3 with revolving laps 26 and 27 provided on both sides of a disc, stationary scrolls provided on their surfaces 4b, 5b facing each surface 3d, 3e of said disc with stationary laps 6, 7 in engagement with the revolving laps 26, 27, said revolving laps 26, 27 being arranged in frictional contact with said surfaces 4b, 5b of the stationary scrolls, and a rotary drive shaft 11 penetrating the stationary and revolving scrolls and eccentrically fitted in the disc of the revolving scroll 3, wherein the rotary drive shaft 11 drives the revolving scroll 3 to cause discharge of compressed gas from a last compression chamber. A housing 19 is mounted on the outer sides of the stationary scrolls, and accommodates a drive source of the rotary drive shaft 11. Discharge passages 4d and 5d are provided for discharging compressed gas from the sides of the surfaces 3d and 3e of the revolving scroll 3. The discharge passages 4d and 5d extend outwardly from the housing 19. <IMAGE>

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IPC 8 full level
F04C 18/02 (2006.01); **F04C 23/00** (2006.01); **F04C 25/02** (2006.01); **F04C 28/02** (2006.01); **F04C 29/04** (2006.01); **F04C 29/12** (2006.01)

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Citation (search report)
• [XY] EP 0687815 A2 19951220 - ASUKA JAPAN CO LTD [JP]
• [X] DE 3721611 A1 19890119 - ALCATEL HOCHVAKUUMTECHNIK GMBH [DE]
• [A] EP 0578890 A1 19940119 - COPELAND CORP [US]
• [A] EP 0579888 A1 19940126 - AGINFOR AG [CH]
• [A] DE 4341716 C1 19950309 - MANNESMANN AG [DE]
• [A] FR 1121079 A 19560720
• [E] EP 0777053 A1 19970604 - ANEST IWATA CORP [JP]
• [Y] EP 0401741 A1 19901212 - CIT ALCATEL [FR]
• [A] DE 4129897 A1 19930311 - KOTEREWKA KATHARINA [DE], et al

Cited by
EP3045728A1; CN109185127A; CN103573627A; CN111486093A; EP3647599A3; US11773849B2; EP3739166A3; EP3974655A3; DE102014117400A1; EP3153708A1; EP3508727A1; DE102020134469A1; WO2022136157A1; EP3647599B1

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