

Title (en)  
ROTARY PISTON BLOWER

Publication  
**EP 0267559 B1 19910424 (DE)**

Application  
**EP 87116469 A 19871107**

Priority  
• DE 3638183 A 19861108  
• DE 3712354 A 19870411

Abstract (en)  
[origin: US4846642A] A gap seal formed between surfaces cooperating with each other such that operation free of engagement between the cooperating rotor and housing parts with respect to each other at relative speeds occurs subject to a roughened light-metal surface of one part cooperating with a covering of foamed synthetic material on the other part so as to assure gap seal therebetween rather than having any metal-to-metal and/or foamed-material to foamed-material interengagement. The foamed synthetic material covering of a surface preferably is made of polyurethane and the light-metal surface is made of aluminum roughened by sandblasting or etching. The lightweight metal part can have cavities and recess spaces therein to be filled with foamed material as well as other fins, ribs, and anchoring provision for holding the foamed synthetic material bodies in place. The applicability of the cooperating surfaces of lightweight metal parts and foamed synthetic material parts includes rotary piston engines having different configuration of lobes of rotating pistons as well as cooperating surfaces of a spiral compressor and also a screw compressor for delivery of working medium free of oil and bearing grease.

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**F01C 21/08**

IPC 8 full level  
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CPC (source: EP US)  
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Cited by  
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