

Title (en)  
ROTARY COMPRESSOR

Title (de)  
ROTATIONSVERDICHTER

Title (fr)  
COMPRESSEUR ROTATIF

Publication  
**EP 2418386 A4 20140723 (EN)**

Application  
**EP 10761437 A 20100407**

Priority  
• JP 2010002544 W 20100407  
• JP 2009095844 A 20090410

Abstract (en)  
[origin: EP2418386A2] A rotary compressor includes a cylinder 30, an eccentric portion 31a of a shaft 31 disposed in the cylinder 30, and a piston 32 which is fitted into the eccentric portion 31a. A columnar groove 32a is formed in the piston 32, and angle of an arc of the groove 32a is greater than 180°. The rotary compressor further includes a piston 32 inserted into a slot formed in the cylinder 30, a slot 30b formed in the cylinder 30, and the groove 32a formed in the piston 32, and a columnar portion 33a having a columnar portion 33a on its one end. A compression chamber 39 is formed between the cylinder 30 and the piston 32, the columnar portion 33a is swingably fitted into the groove 32a, and the vane 33 reciprocates in the slot 30b as the shaft 31 rotates. The compression chamber 39 is divided into a high pressure-side space 39b and a low pressure-side space 39a by the vane 33. The groove 32a formed in the piston 32 is formed into a columnar shape, the groove 32a has the arc and an angle of the arc is greater than 180°. A fictitious extension La of the arc is located inside of the outer periphery fictitious line Lb of the piston 32. Gas and oil are less prone to leak from the high pressure-side space 39b to the low pressure-side space 39a of the compression chamber 39.

IPC 8 full level  
**F04C 18/324** (2006.01); **F01C 21/08** (2006.01)

CPC (source: EP)  
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Citation (search report)  
• [XA] FR 1480236 A 19670512 - NIMEX  
• [XA] GB 995084 A 19650616 - N G N LTD, et al  
• [XAI] DE 355665 C 19220629 - MAX GUETTNER  
• [XA] BE 371144 A  
• See references of WO 2010116733A2

Cited by  
EP3767071A1; DE102012004145A1; US11493044B2

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