

Title (en)
COMPRESSOR

Title (de)
VERDICHTER

Title (fr)
COMPRESSEUR

Publication
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Application
EP 14824368 A 20141212

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Abstract (en)
[origin: WO2015086159A1] The invention relates to a screw compressor (10) with at least one screw rotor (20, 22) which is rotatably arranged about a rotational axis arranged in the axial direction. The at least one screw rotor (20, 22) is arranged in a compression area (24) which is fluid-tight against the surrounding area at least in some sections and opens into a high-pressure volume (26). The compressor (10) further has a Vi slide (28) for influencing an inner volume ratio of the compressor, said Vi slide (28) at least partly forming a section of the fluid-tight border of the compression area (24) and being arranged such that the position of the slide can be adjusted in the axial direction. The Vi slide (28) can be continuously displaced, and the compressor (10) has a device (32) for detecting the position of the slide.

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Citation (examination)
• US 2005013702 A1 20050120 - DIETERICH ROLF [DE], et al
• DE 3422573 A1 19851219 - FRICK CO [US]

Citation (opposition)
Opponent : BITZER Kühlmaschinenbau GmbH
• US 4351160 A 19820928 - KOUNTZ KENNETH J, et al
• EP 1553300 A1 20050713 - DAIKIN IND LTD [JP]
• US 2003007873 A1 20030109 - HATTORI TOSHIRO [JP], et al
• DE 10333400 A1 20050210 - BITZER KUEHLMASCHINENBAU GMBH [DE]
• DE 3528058 A1 19861016 - FRICK CO [US]
• TEWES N.: "Vergleichende Betrachtung verschiedener Verfahren zur Veränderung des eingebauten Volumenverhältnisses von Schraubenkompressoren", VDI BERICH, no. 1135, 1 January 1994 (1994-01-01), pages 237 - 248, XP055912460

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