

Title (en)  
ECCENTRIC SCREW PUMP

Title (de)  
EXZENTERSCHNECKENPUMPE

Title (fr)  
POMPE À VIS SANS FIN EXCENTRIQUE

Publication  
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Application  
**EP 10711641 A 20100302**

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Abstract (en)  
[origin: CA2754139A1] The invention relates to an eccentric screw pump (100), in particular for conveying viscous, highly viscous and abrasive media, having a longitudinal direction L, having a conical, helically wound, at least single-start rotor (1) having a gradient h, having at least one eccentricity (e1, e2, e3,en) and at least one cross-section d that is rotatably arranged in a single or multi-start conical stator (2) wherein a plurality of chambers (3, 4, 5n) each having a volume (V3, V4, V5Vn) is formed between the rotor (1) and stator (2) that serve to convey the medium and wherein the chambers (3, 4, 5n) between the stator and the rotor are limited by a sealing line D. The volumes (V3, V4, V5Vn) of each individual chamber (3, 4, 5n) between the stator (2) and the rotor (1) are equal.

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Citation (opposition)  
Opponent : Vogelsang GmbH & Co. KG  
• WO 2010100134 A2 20100910 - DAUNHEIMER RALF [DE]  
• DE 202009002823 U1 20090730 - DAUNHEIMER RALF [DE]  
• US 1892217 A 19321227 - LOUIS MOINEAU RENE JOSEPH  
• EP 1988288 A1 20081105 - GRUNDFOS MANAGEMENT AS [DK]  
• US 6457958 B1 20021001 - DUNN LONNIE [CA]  
• US 3139035 A 19640630 - O'CONNOR WALTER J  
• US 2957427 A 19601025 - O'CONNOR WALTER J  
• EP 1813812 A1 20070801 - GRUNDFOS MANAGEMENT AS [DK]  
• WO 2008000505 A1 20080103 - GRUNDFOS MANAGEMENT AS [DK], et al  
• US 6354824 B1 20020312 - MILLS ROBERT A R [CA]  
• US 5722820 A 19980303 - WILD ALAN G [US], et al  
• US 5358390 A 19941025 - JAEGER ARNOLD [DE]  
• US 3208391 A 19650928 - RUDOLF LINDBERG GUSTAV  
• US 2553548 A 19510522 - CANAZZI HENRY D, et al  
• DE 202005008989 U1 20050811 - SEEPEX GMBH & CO KG [DE]  
• DE 10345597 A1 20050512 - VERSCHLEIS TECHNIK DR ING HANS [DE]  
• DE 2632716 C2 19890309  
• DE 3442977 A1 19860528 - WAHL VERSCHLEISS TECH [DE]  
• DE 2632716 A1 19780126 - MELCHIOR MARTIN THEODOR  
• DE 2736590 A1 19790222 - KOWALZIK HARTMUT

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