

Title (en)
A SCREW PUMP.

Title (de)
SCHRAUBENPUMPE.

Title (fr)
POMPE A VIS.

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Application
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Abstract (en)
[origin: WO8203428A1] A screw pump comprising a driving screw (12) and a toothed, rotatable sealing disc (15) meshing therewith, the teeth (20) of the disc meshing with recesses formed between the threads (22) of the screw and seal against these, the teeth (20) of the sealing disc (15) having substantially parallel side edges (22) and triangular gaps (19) between the teeth. The purpose of the present invention is to provide a screw pump, which has a high pump effect, which exerts the sealing disc (15) to a substantially less wearing, which effectively can keep the pump screw clean from adhering substances, which can be manufactured by casting and thus obtains a low weight simultaneously as it is simple from a constructional point of view and thus can be easily disassembled for cleaning, service and repair. These tasks have been solved by the features that the flanges, which form the thread (21) of the screw have a substantially constant or, in the direction towards the top of the flange, tapering thickness with the exception of the threaded part of the screw (12) situated in front of the central part of the sealing disc (15), which threaded part is partially formed as a bead or a ridge, and that the bead or the ridge (18) has a measure in the rotational direction of the screw which substantially corresponds to the shifting distance of the screw (12) in moving the sealing disc (15) from a position at which one tooth seals to a position at which a second, next following tooth seals.

Abstract (fr)
Pompe helicoidale comprenant une vis d'entrainement (12) et un disque de scellement rotatif dente (15) s'engrenant dans la vis, les dents (20) du disque s'engrenant dans des recoins formes entre les filets (22) de la vis et formant une etancheite contre ceux-ci, les dents (20) du disque de scellement (15) possedant des bords lateraux (22) sensiblement paralleles et des espacements triangulaires (19) entre les dents. Le but de la presente invention est d'obtenir une pompe helicoidale possedant un effet de pompage eleve, qui provoque une usure sensiblement plus reduite du disque de scellement (15), qui peut debarrasser efficacement la vis de la pompe des substances y adherant, qui peut etre fabriquee par moulage de maniere a presenter un faible poids en meme temps qu'une forme simple d'un point de vue constructif et qui peut etre facilement demontee pour le nettoyage, l'entretien et les reparations. Ces conditions peuvent etre remplies en utilisant des brides, qui forment le filet (21) de la vis et qui presentent une epaisseur sensiblement constante ou, en direction du sommet de la bride, sensiblement conique a l'exception de la partie filetee de la vis (12) situee devant la partie centrale du disque de scellement (15), cette partie filetee ayant partiellement la forme d'un bourrelet ou d'une crete, et le bourrelet ou la crete (18) possedant une mesure dans la direction de rotation de la vis qui correspond sensiblement a la distance de decalage de la vis (12) dans le deplacement du disque de scellement (15) depuis une position dans laquelle une dent cree une etancheite jusqu'a une position dans laquelle l'etancheite est assuree par la dent suivante.

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