

Title (en)
MOTOR-PUMP UNIT

Title (de)
MOTOR-PUMPE-EINHEIT

Title (fr)
GROUPE MOTEUR-POMPE

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Abstract (en)
[origin: WO2022063585A1] The invention relates to a motor-pump unit comprising a pump base (3), a first pump rotor (4) which is rotatably mounted with respect to a first axis (X), is rotatably coupled to the rotor (8) of an electric motor (6) and has a first toothing, and a second pump rotor (5) which is rotatable about a second axis (Y) and has a second toothing which meshes with the first toothing, wherein the toothings have a number of teeth, differing from one another by one, in such a way that chambers enclosed between the two toothings increase or decrease in volume as the two pump rotors (4, 5) rotate about the respective axes (X, Y). The chambers are delimited radially externally by a spherical inner wall of a collar (20) of the first pump rotor (4) and radially internally by a spherical outer wall of a dome-shaped region (23) of the second pump rotor (5). The end face (17) of the second pump rotor (5) facing away from the associated toothing is designed as a sliding surface (18), by means of which the second pump rotor (5) is supported on a support surface (19) which is provided on the pump base (3) and is perpendicular to the second axis (Y). On this surface there are two recesses which are separated from one another and which communicate fluidically with different fluid connections formed on the motor-pump unit. The second pump rotor (5) has a number of fluid openings which each open into an interdental space, the number of openings corresponding to the number of teeth of the toothing of said rotor.

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