

An electrical submersible pump

Abstract

The invention relates to high-speed electrical submersible pumps used for hydrocarbons production from oil wells with high concentration of solids. The technical result such as a longer service life is achieved with the technical design, wherein the pump comprises: a housing with a head and a base, a compression nut, a shaft installed on a journal bearing, stages of impellers and spacers installed on the shaft, set of diffusers installed on the housing, wherein the diffusers and impellers are manufactured from a ceramic material. The preferable design has metal spacers between the diffusers, wherein the length of the diffuser spacer between the contact surfaces equals the distance between the impeller spacers.

Figure 1