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# The study of temperature change in the working gap of magnetic-liquid sealers using ANSYS program

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*During operation of magnetic fluid sealant as a result of heating magnetic properties of fluid may deteriorate and flow can occur under the pole teeth. To study the effect of temperature on change of the friction torque in the working gap of magnetic-liquid sealer an installation has been designed and constructed. Using the ANSYS, a thermal analysis was made, allowing to analyze the processes that occur in magnetic-liquid seal at its operation, as well as to optimize its design.*

**Keywords:** magnetic-liquid sealer, temperature conditions, thermal conductivity, working gap, friction torque.

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