

Movement of waxes

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Operation:

3 Tanks with each 5.600 l volume for wax raw materials for production

Operation of each: 1 OLOID Type 400 (with round gearbox)

Period

since August 2018 / April 2019

Success:

Better homogenisation and quality of the waxes

Application definition and problem description:

During production, a wax base (viscosity: approx. 10 mPas) is stored in 3 heated storage tanks. The mixing of the storage tanks should be secured at all filling heights. The problem was: in winter, the external installation of the tanks caused thermal bridges, which caused a crystallization of certain components in the cold and thus lead to product loss.



Technical solution:

The OLOID type 400 was installed laterally with a specially developed round gearbox in the lower part of the 3 tanks. The electrical connection capacity of OLOID agitators is only 0.25 kW. Alternatively, a bucket agitator with 1.5 kW each could have been installed per tank. It is controlled by a frequency converter (FC), which enables level-dependent, yet even more energy-saving operation (effective: approx. 0.10 kW).

Result, from the customer's point of view:

Through the operation the wax has a better quality and through continuous homogenisation, the wax mass remains at a constant temperature. This counteracts the precipitation of the higher melting components in the matrix. At the same time, the natural colour stays better and longer lasting. The temperature control of the inner heating coils could be minimised.



Outlook:

If maintenance is required, the round gearbox (DN 400) can be easily removed when the tank is empty and the opening can be sealed with a blind flange supplied.

