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PERFORMANCE OF FALLING FILM PLATE EVAPORATORS IN RECONSTRUCTED MULTIPLE-EFFECT EVAPORATION STATION IN A SUGAR FACTORY SAJKASKA ZABALJ

ABSTRACT

General trend of free trade in regional level as well as in the direction of European Union has motivated sugar factories located in Serbia to invest in technologies that are more efficient in order to make their products more competitive at the markets in Europe. The aim of this work was to evaluate effects of falling film plate evaporators on the energy consumption of evaporation plant, as well as to validate performance of this type of evaporators. It was found that this type of evaporator decreased energy requirements and in the same time evaporation process was more effective due to high values of heat transfer coefficients.

KEYWORDS

sugar industry, falling film plate evaporator, heat transfer coefficient

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REFERENCES [view full list]

1. Urbaniec, K., Zalewski, P., Zhu, X. X. (2000): A decomposition approach for the retrofit of energy systems in the sugar industry. *Applied Thermal Engineering*, 20, 1431-1442.
2. Ribeiro Jr., C. P., Cano Andrade, M. H. (2002): A heat transfer model for the steady-state simulation of climbing-falling-film plate evaporators. *Journal of Food Engineering*, 54, 309-320.
3. Urbaniec, K. (2004): The evolution of evaporator stations in the beet-sugar industry. *Journal of Food Engineering*, 61, 505-508.
4. Morgenroth, B., Jayatilaka, D., Punter, G. (1997): Development of plate evaporator technology, the market place and the choice for the sugar technologist. *Zuckerindustrie*,

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5. Licha, H., Morgenroth, B., Witte, G. (1994): Operating experience with a falling-film plate evaporator. Zuckerindustrie, 119, Nr. 4, 257-262.

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