

Kuhn-Fachmedien – Getränke und Lebensmittel Herstellung

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Power and Heat Supply

An INTEC biomass-fired thermal oil heater forms the basis of a new heat supply concept for a potato chip production facility. The system replaces fossil fuels with wood pellets and supplies several production lines efficiently via a central energy center.



The heat supply is based on renewable fuels (Image: INTEC).

INTEC Engineering has developed a biomass-based heat supply concept for the new construction of a potato chip production facility for an international food manufacturer in China. For the first time across the group, the food manufacturer is using a biomass-fired thermal oil heater to replace fossil fuels and reduce the production's CO₂ emissions.

To date, the fryers in chip production have been heated using thermal oil, which is typically heated with gas or light-oil burners. According to the company, the Bruchsal-based company has already implemented numerous such systems in Europe, the Middle East, Africa and Asia. Instead of decentralized individual heating systems, the new concept uses a central energy center to supply all fryers via a shared heat network. This allows additional production lines to be integrated flexibly without interrupting the energy supply.

In the first expansion stage, a biomass-fired thermal oil heater with grate firing and a net output of 8 MW generates the required process heat. Regionally produced wood pellets are used as the fuel. The modular system concept allows additional heat generators to be integrated and thus supports a gradual expansion of production capacity. The pellet storage facility was also designed on a modular basis to accommodate future production expansions.