

# Heat recovery system: An upgrade programme for existing potato processing lines from BMA Nederland

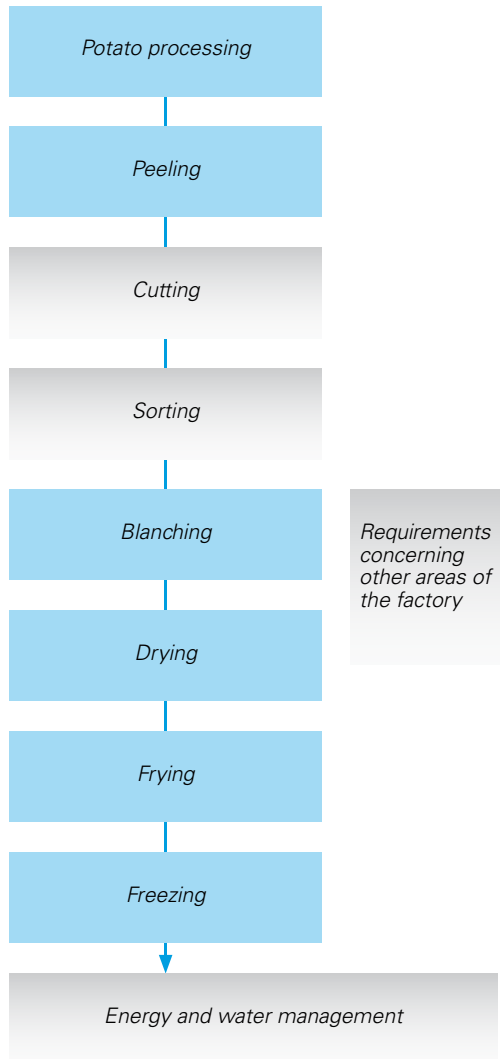
BMA Nederland BV has designed, built and supplied steam peelers, blanchers, cookers, dryers, fryers and freezers for potato processing lines for customers worldwide. Rising energy costs, stricter regulations on emissions and environmental issues are becoming increasingly important for many of these customers. In response to these concerns, BMA Nederland has set up a product optimisation programme, which has resulted in new solutions for reducing energy consumption for existing and new installations.

BMA Nederland took the first step in this energy saving process several years ago when it developed the steam condensate system for steam peelers. This installation is now widely accepted and some of our customers are already waiting for the next step to optimise the overall energy balance of their plants.

To reach this objective, it is necessary to investigate and implement concrete measures to lower the energy consumption in one or more process steps. BMA Nederland BV has recently developed and standardised a calculation model that can be used to simulate the heat consumption of both complete processing lines and individual sections. This model has been developed primarily for French fries factories, but can also be used to identify energy problems in the “wet” sections of other potato processing factories, such as plants for processing potato flakes, granules and potato specialities.

The pre-dryer plays a major role in the energy balance of a French fries factory. This equipment has already undergone many improvements as part of our ongoing product development programme. Several features have increased the performance of the dryer and have lowered its energy consumption: a new belt construction, the internal re-use of hot exhaust air and other measures such as the use of frying vapour and steam peeler exhaust to heat the dryer. Many existing dryers can also be improved by integrating some features that have been introduced in the design of new dryers.

*Erik van Loon*



*Process steps in a  
French fries  
production line*