



# Product Improvements with Pick

*By Michael Campbell, VP of Food Industry Marketing & Development*

Direct Steam Injection (DSI) Heaters/Cookers offer many advantages to customers. DSI has exceptional temperature control throughout the entire operating range resulting in a quality product. Customers can eliminate the inefficiency and maintenance headaches of a traditional batch cooking process, resulting in higher volumes of quality product in less time.

## How Direct Steam Injection Cooking Works

Pick Direct Steam Injection Heaters are used to heat/cook any water miscible liquid or slurry on a continuous straight-through basis. The Pick Sanitary Heater is an excellent choice



for cooking slurries with bite-sized pieces such as salsas and stews. It was the first DSI heater to achieve set-point temperature on demand with a non-shearing action. The unique, low velocity, multiple orifice steam injector and helical flights ensure proper blending of steam and

product without high turbulence. This non-shearing process helps to maintain the product integrity with no damage to texture or consistency.

## Customer Finds Success with Pick DSI

Pick Heaters was approached by a food processing customer wanting to manufacture their pastry filling going from a batch process to a continuous process. Pick Heaters began working with a recipe in the lab, testing the formulation in small 25 lb. batches. Asking Pick Heaters to conduct the product testing demonstrated to the customer that the Pick sanitary heater could produce the pastry filling and yield better results than their existing process. It proved that the direct steam injection heater is a viable alternative and that the overall system proposed would simplify the operation yet deliver consistent finished product. Pick Heaters experimented with the recipe, temperatures, and produced a product that was

superior to what was currently made. The pastry filling had a better mouth feel and a good color.

Pick Heaters recommended the equipment necessary for heating and cooling. To accommodate the customer's process, the total package was comprised of a slurry feed pump, Pick Sanitary Jet Cooker to heat the product, a buffer/surge tank and divert assembly, and a system with scraped surface heat exchangers to cool the product prior to packaging. The customer could rely on Pick's packaging capabilities to deliver the entire system to them, including the heat exchangers, on frames ready for installation. Pick provided start-up assistance to ensure the production unit performed as the R&D unit did in the lab testing.

## The Pick Heaters Difference

After product testing in the lab and analysis of results, our food technology expert will work with customers to determine if the Pick Heater is the right choice for the product. If a Pick Heater isn't the right solution because of too much water activity, potential product/protein degradation issues or consumer/marketing perceptions regarding the use of steam and the need for re-labeling, Pick can still provide a solution with a packaged indirect system utilizing other methods of heat transfer. Customers can rely on Pick Heaters to offer customized solutions to their food processing challenges.

**Michael Campbell** is a Vice President with Pick Heaters, Inc. Since joining Pick in 1991, Campbell has made major strides in development of the Sanitary Heater market.

With over 30 years experience working in Research and Service, and concentration in the benefits of direct steam injection for starch based products, Michael has worked with NCA, PMCA, AACT, 3A and other food organizations to promote the Pick Sanitary Heater and its benefits as a suitable cooker in the jelly and gelatin confectionery markets as well as other food markets.