

# OPTIMIZED HEAT CONTROL ACHIEVES PRECISION SAUSAGE FORMING

## Votator® II Scraped Surface Heat Exchanger



### Challenge

A pork sausage processor utilized a forming machine designed to deliver multiple thicknesses, sizes and shapes of sausage patties prior to entering a cooking tunnel. The final sausage temperature delivered to the forming machine was a critical parameter in the preparation phase. Therefore, regardless of the selected configuration, the sausage patties had to be deposited on the conveyor without any deformations. The customer looked to SPX FLOW for a solution that included a pump and heat exchangers. A challenge was in the variable upstream conditions including the sausage temperature from cold storage, product composition (percentage of fat content versus lean) and final product temperature leading to the forming operation.

### Solution

A WCB Universal 1 Model 134 positive displacement pump was installed to receive refrigerated pork sausage from an auger-fed hopper at a constant inlet pressure. The PD pump includes a rectangular flange inlet and supplies a constant flow of pork sausage to a series of three Votator II scraped surface heat exchangers equipped with individually controlled bleed and feed supply loops of warm water. This precisely controlled method of delivering warm water to each cylinder ensures the sausage is uniformly heated to forming temperatures without cooking the product. Temperature control is within very tight parameters and flexible to changing conditions with the forming machine configurations including different diameters, thicknesses and shapes.

### Result

The sausage patty, regardless of its shape or thickness, is transferred from the forming template with smooth crisp edges to ensure the cooking phase produces a product that appeals to the customer.



“Controlled and  
uniform heating  
without cooking the  
product.”



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