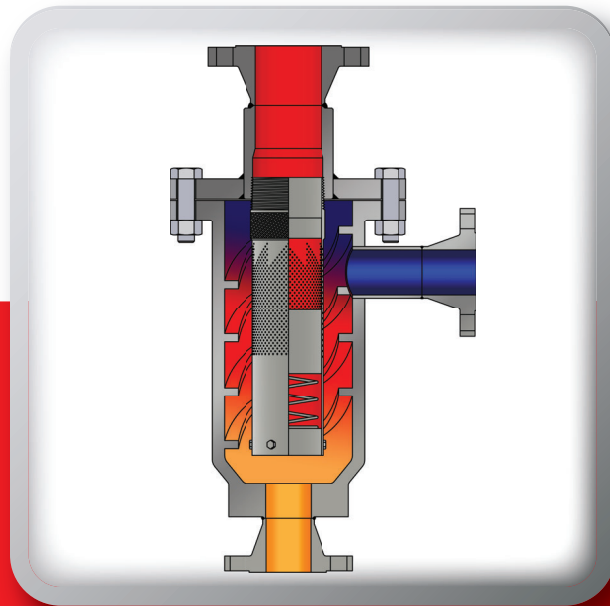




**Process Heating Solutions Worldwide**

## **Pulp & Paper Industry Case History**



### **Starch Cooking**

#### **Application**

A converting mill producing a range of specialty coated printing and copier papers, required a steam injection heater for cooking cationic starch slurry, up to 35% solids. The heater serves a dual function. First, water is pre-heated to 140°F and blended with starch powder. Then the starch slurry is pumped back through the heater at a rate of 40 GPM and cooked at 200°F. Depending on the recipe, post dilution is used to obtain final consistency.

#### **Process Conditions**

Slurry and Water Flow Rate:	40 GPM
Inlet Temperature:	50°F
Final Cook Temperature:	200°F
Steam Pressure:	65 PSIG
Water Pressure:	50 PSIG
Required Steam Flow:	2,580 lb/hr

#### **Solution**

A **Pick Model 6X25-3BX Heater** was selected for this application. Its generous flow-through design imposes negligible pressure drop on the slurry. It provides thorough cooking at a precisely controlled temperature. The low velocity design minimizes mechanical shear of the starch granules, an important factor for most cationic starches.

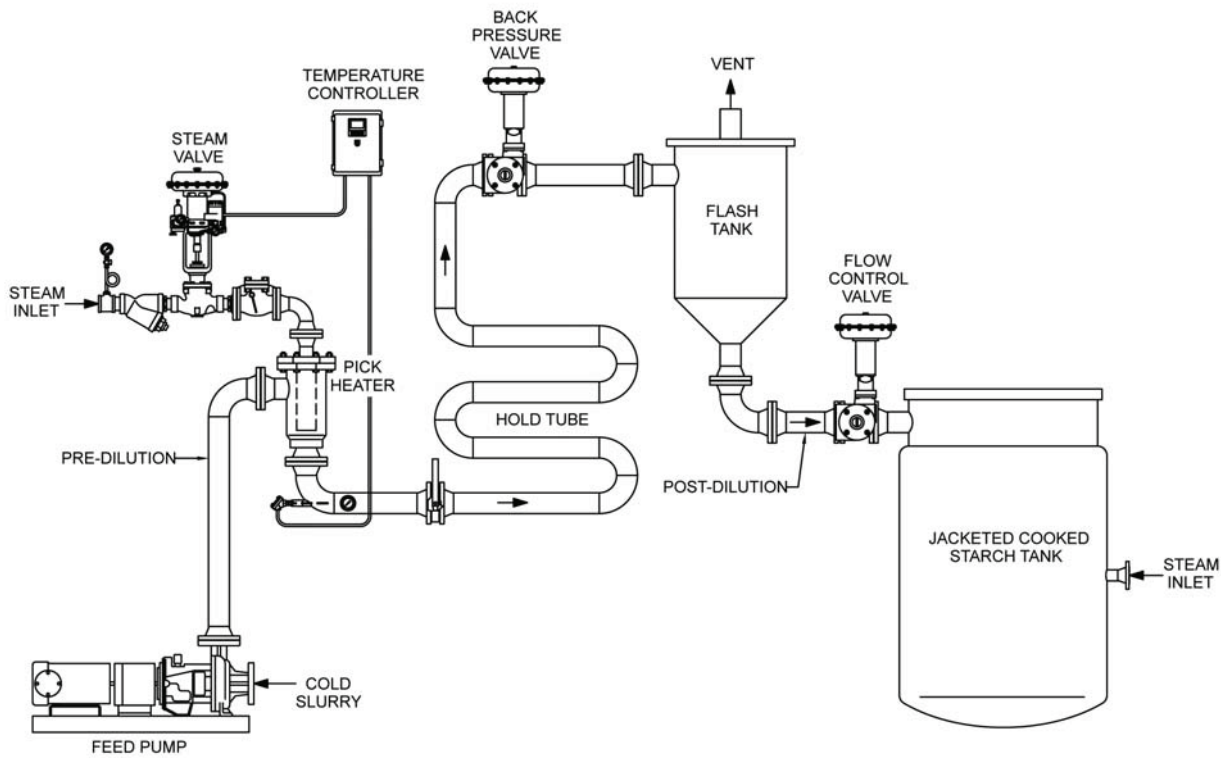
**Learn more at [www.pickheaters.com](http://www.pickheaters.com)**

Pick Heaters, Inc. — 730 S. Indiana Ave. — West Bend, WI 53095 USA  
Phone: (262) 338-1191 — Email: [info1@pickheaters.com](mailto:info1@pickheaters.com)

#### **Features and Benefits:**

- **Low Pressure Drop**
- **Precise Temperature Control**
- **Low Mechanical Shear**
- **Compact Design**
- **Non-Plugging**

# Starch Cooking System Diagram



**Learn more at [www.pickheaters.com](http://www.pickheaters.com)**

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