Steam Injection Liquid Heating System

Superior to Venturi and Static Mixer Designs

Variable Flow Heater

Benefits
• Eliminates harmful vibration and steam hammer
• Widest operating range of any steam injection heater
• Smooth, quiet operation within acceptable dBA limits
• Precise, accurate temperature control
• Complete absorption of steam into liquid at point of contact - not dependent on high velocity mixing in downstream piping
• Low liquid pressure drop
• 100% heat transfer - cuts fuel costs up to 30% compared with indirect heat exchangers

Features
• Steam capacity ratings from 700 to 35,000 lbs/hr
• Available in 316 stainless steel, carbon steel, cast iron or special alloys upon request
• Complete instrumentation available
• Over 70 years of experience in design, installation and service of steam injection heating systems

Applications:
• Multiple Hose Stations
• Plant Sanitation
• Can Topping
• Can Washing
• Filter Backflush
• Freezer Coil Defrosting
• Laundries

Learn more at www.pickheaters.com
Pick Heaters, Inc. — 730 S. Indiana Ave. — West Bend, WI 53095 USA
Phone: (262) 338-1191 — Email: info1@pickheaters.com
### Specifications - 9 Standard Sizes

<table>
<thead>
<tr>
<th>Model No.</th>
<th>6X7</th>
<th>6X10</th>
<th>6X25</th>
<th>6X50</th>
<th>6X75</th>
<th>6X100</th>
<th>6X150</th>
<th>6X200</th>
<th>6X350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steam Capacity</td>
<td>Lb/hr</td>
<td>700</td>
<td>1,250</td>
<td>2,500</td>
<td>5,000</td>
<td>7,500</td>
<td>10,000</td>
<td>15,000</td>
<td>20,000</td>
</tr>
<tr>
<td>Kg/hr</td>
<td>320</td>
<td>565</td>
<td>1,130</td>
<td>2,265</td>
<td>3,400</td>
<td>4,535</td>
<td>6,800</td>
<td>9,070</td>
<td>15,875</td>
</tr>
<tr>
<td>Liquid Pipe Size Range (inches)</td>
<td>Threaded</td>
<td>¾ - 1 ½</td>
<td>1 - 2</td>
<td>1 ¼ - 2 ½</td>
<td>1 ½ - 3</td>
<td>2 - 3</td>
<td>2 ½ - 3</td>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td>Flanged Class 125</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>4</td>
<td>4</td>
<td>4 - 6</td>
<td>4 - 8</td>
<td>4 - 8</td>
</tr>
<tr>
<td>Approx Dimensions (inches)</td>
<td>A</td>
<td>44</td>
<td>48</td>
<td>52</td>
<td>58</td>
<td>66</td>
<td>76</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td>B</td>
<td>44</td>
<td>48</td>
<td>52</td>
<td>56</td>
<td>66</td>
<td>76</td>
<td>85</td>
<td>94</td>
<td>104</td>
</tr>
<tr>
<td>Shipping Weight (lbs)</td>
<td>320</td>
<td>375</td>
<td>440</td>
<td>650</td>
<td>900</td>
<td>1,100</td>
<td>2,200</td>
<td>2,500</td>
<td>3,000</td>
</tr>
</tbody>
</table>

### Water Pipe Selection Chart - Choose best pipe size based on water flow rate in GPM

<table>
<thead>
<tr>
<th>Max. GPM</th>
<th>8</th>
<th>15</th>
<th>30</th>
<th>45</th>
<th>90</th>
<th>140</th>
<th>230</th>
<th>500</th>
<th>1,000</th>
<th>1,800</th>
<th>3,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Size (inches)</td>
<td>0.75</td>
<td>1</td>
<td>1.25</td>
<td>1.5</td>
<td>2</td>
<td>2.5</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>10</td>
</tr>
</tbody>
</table>

Dimensions are approximate. Variable Flow Heaters are normally used on water service and are offered with cast iron housings as standard. Piping, fittings, and valves are iron, bronze, and steel. Alternate materials are available upon request.

### Sizing the Variable Flow Heater

Steam demand (lb/hr) = 0.43 x flow(GPM) x ΔT (°F)  
Steam demand (kg/hr) = 0.092 x flow(LPM) x ΔT (°C)  

Example: 200 GPM x 50°F temperature rise x 0.43 = 4,300 lb/hr of steam. You would require a 6X50 which has a maximum rated steam capacity of 5,000 lb/hr, and a maximum recommended water flow rate of 230 GPM when furnished with 3" water piping.

- **Provides Hot Water Instantly**
- **Maintains Set Water Temp. within 3°F Regardless of Δ Flow**
- **Operates Automatically • Set It and Forget It**
- **Systems Available to Deliver Any Volume of Hot Water**

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