Thermax Steam Sparged Water Bath

Cryogenic Vaporizers

provide smooth and reliable vaporization over a wide range of flows. Cryogens and liquefied gases are vaporized and superheated in Thermax Vortex-Flow™ tube bundle located in the hot water bath. The water bath temperature is maintained by feeding steam through custom variable flow spargers. An entire steam control train is part of the package that includes a pneumatic control valve, strainer, and steam drip trap. Condensate is recovered or sent to drain through a provided overflow connection.

The water bath provides a large thermal mass that reduces peak steam demand and also reduces thermal stress, extending the life of the tube bundle. Standard units come with a 3 minute ballast time with optional ballast times up to 30 minutes for operation even during steam interruptions.

**Standard features**

- ASME Sect VIII Div. 1 code stamp on bundle
- Pneumatic steam control system
- Stainless steel removable tube bundle
- Spring compensated sparger heads
- Steam line drip trap & strainer
- Thermax proven Vortex Flow action
- Temperature gauge & Sight glass
- Vent / Manway with flapper
- Carbon Steel tank with 3 minute ballast

**Options**

- Steam Block and Bypass valves
- Tank insulation
- ASME code stamp on tank
- Ballast tanks to 30 Minutes
- Approval for CSA Components, CRN Registration, PED & SQL
- Coil bundle made from Hasteloy, Monel or Titanium
- High/Low water temp sensor
- Liquid by-pass for process temperature control
- Pressure-build circuit
- Multiple coil bundles in same tank
## Standard Models and Ratings

<table>
<thead>
<tr>
<th>Model</th>
<th>Rating MSCFH Nitrogen*</th>
<th>Steam Consumption</th>
<th>Tank Capacity</th>
<th>Length</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>lb/Hr</td>
<td>kg/Hr</td>
<td>Gal</td>
<td>Liters</td>
<td>in</td>
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<tr>
<td>SP 100H</td>
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<td>585</td>
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</tbody>
</table>

Super-heating Nitrogen to 70ºF
Adjust ratings for other fluids as shown:

- Oxygen 92%
- Argon 110%
- Hydrogen 150%
- Carbon Dioxide 85%
- LNG 80%

For Ammonia, Propane, Ethylene, Chlorine and other Cryogens call Chart Inc. for ratings.

Data shown are approximations, units are built to order.