PURE STEAM GENERATORS

OVERVIEW:
- Designed and built in accordance with cGMP requirements
- All fabrication is by MECO in the U.S. (spare parts available)
- Efficient component layout allows for ease of maintenance and calibration
- Optional complete SAT package and execution
- Supported by MECO 24-hour customer service
- Backed by warranty

PRODUCT HIGHLIGHTS:

**Standard Features**
- Unit is completely piped, wired, and assembled on a single skid at the factory
  - Fully functional FAT
  - Reduces installation costs and startup time
- Natural circulation evaporator
- Reduces scale effects
- No circulation pumps or spray nozzles required
- Available in both vertical and horizontal configurations
  - Minimal floor space required for vertical generators
  - Utilizes 3 stage separation technology
  - Sanitary construction and connections on product contact surfaces
  - PID loop control of feed water level and pure steam pressure
  - PLC based controls
  - Optional feed water preheating and/or deaeration
  - Optional steam quality sampling system
  - Optional Condenser for WFI production

**Equipment Details**
- Double tubesheet heat exchangers
- Sloped piping and low point drains on product piping
- Minimum deadlegs on product piping
- 316/316L SS process contact components
- Premium valves and instruments
- Stainless steel air lines
- Stainless steel hardware
- 304 SS cladding

**VERTICAL CONFIGURATION**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CAPACITY in LBS/HR [KG/HR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS280V</td>
<td>200-330 [91-150]</td>
</tr>
<tr>
<td>CS550V</td>
<td>340-570 [154-259]</td>
</tr>
<tr>
<td>CS800V</td>
<td>630-1,000 [286-454]</td>
</tr>
<tr>
<td>CS1700V</td>
<td>1,100-1,800 [499-816]</td>
</tr>
<tr>
<td>CS4000V</td>
<td>2,480-4,100 [1,125-1,860]</td>
</tr>
<tr>
<td>CS6600V</td>
<td>4,050-6,550 [1,837-2,971]</td>
</tr>
<tr>
<td>CS8100V</td>
<td>6,000-8,400 [2,722-3,810]</td>
</tr>
<tr>
<td>CS11000V</td>
<td>9,900-13,650 [4,490-6,190]</td>
</tr>
</tbody>
</table>

**HORIZONTAL CONFIGURATION**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>CAPACITY IN LBS/HR [KG/HR]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS5900H</td>
<td>2,780-6,860 [1,261-3,021]</td>
</tr>
<tr>
<td>CS10000H</td>
<td>4,720-11,310 [2,141-5,130]</td>
</tr>
<tr>
<td>CS13000H</td>
<td>6,400-15,310 [2,903-6,944]</td>
</tr>
</tbody>
</table>

Notes: Pure steam capacities are dependent upon both the plant steam pressure provided and the pure steam pressure required. The capacity ranges shown above are based on 100-116 PSIG (6.9-7.6 BARG) plant steam pressure and 40-60 PSIG (2.8-4.1 BARG) pure steam pressure. A feed water temperature of 180°F (82°C), without the use of a feed heater, was also assumed.