**Useful Parameters For Parylene Deposition**

**Deposition rates:**  
Parylene “N” ~.00003 inches/hour (0.762 um/hour)  
Parylene “C” ~.0002 inches/hour (5.08 um/hour)

**Maximum deposition thickness before cleaning chamber walls:** .001 inches (25.4 um)

(Clean yellowish deposit in pyrolysis heater after 400g of parylene used)

**Typical Process settings**

<table>
<thead>
<tr>
<th>Parylene</th>
<th>Vapor Heater SP</th>
<th>Pressure SP</th>
<th>Pyrolysis Heater SP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type N</td>
<td>160 C</td>
<td>Base +55 vacuum units</td>
<td>650 C</td>
</tr>
<tr>
<td>Type C</td>
<td>175 C</td>
<td>Base +15 vacuum units</td>
<td>690 C</td>
</tr>
</tbody>
</table>

**Original System Default Setpoints (for Type C)**

<table>
<thead>
<tr>
<th>Furnace</th>
<th>Chamber Gauge</th>
<th>Vaporizer</th>
<th>Vacuum</th>
</tr>
</thead>
<tbody>
<tr>
<td>690 C</td>
<td>135 C</td>
<td>175 C</td>
<td>25</td>
</tr>
</tbody>
</table>

The vacuum pressure controller provides a displayed value that very nearly represents absolute pressure (in mTorr) for the process range of 10 to 100 units. After that point it becomes non-linear (i.e. display of 500 units is approximately 2.2 Torr)  
For processing it has a factory setpoint of 15 units above base pressure. Increasing or decreasing this value will increase or decrease deposition rates, but too high of a deposition rate can lead to poor quality films.

**Typical foil size for boat form:** 11 x 5 inches (formed boat must be < 7.5 inches long)

**Vaporizer:** Temperature above which coating initiates: 90 C  
Temperature below which more parylene can be added to boat: 60 C

**Surface area of chamber, baffle, fixture, and plate:** ~900 in²

**Minimum spacing between product in chamber:** 0.5 inches

**Machine considerations:**  
- Chiller must run in the cold trap for 45 min before initiating the vaporizer heaters  
- After turning the chiller off, wait at least 5 minutes before turning it back on