PSYCHROMETRIC TEST ROOMS

Psychrometric Test Rooms are used by air conditioner manufacturers to determine the thermal performance of unitary air conditioners and split systems. Tescor utilizes dual rooms (indoor and outdoor) and the air enthalpy method to determine unit capacities and provide heat balances. Code testers, which include AMCA nozzles, provide accurate determination of the test unit air flows and outlet air conditions. Tescor’s control software allows the user to perform all of the ARI standard tests including the capability to perform SEER and HSPF calculations.

Tescor offers a standard line of Psychrometric Test Rooms up to 50 Ton capacity with a 10:1 turndown range for each facility.

- Capacity Ranges:
  - 0.5 to 5 Tons
  - 1 to 10 Tons
  - 2 to 20 Tons
  - 5 to 50 Tons
### Psychrometric Test Rooms
#### Typical Specifications

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>RANGE</th>
<th>STABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indoor Room</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Bulb Temperature</td>
<td>40 to 100°F</td>
<td>± 0.2°F</td>
</tr>
<tr>
<td>Dew Point Temperature</td>
<td>35 to 82°F</td>
<td>± 0.2°F</td>
</tr>
<tr>
<td>Indoor Room Air Flow</td>
<td>200 to 2000 CFM</td>
<td>± 0.5 %</td>
</tr>
<tr>
<td>Test Unit Voltage</td>
<td>90 to 520 V</td>
<td>± 1%</td>
</tr>
<tr>
<td><strong>Outdoor Room</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dry Bulb Temperature</td>
<td>-15 to 130°F</td>
<td>± 0.2°F</td>
</tr>
<tr>
<td>Dew Point Temperature</td>
<td>5 to 90°F</td>
<td>± 0.2°F</td>
</tr>
<tr>
<td>Outdoor Room Air Flow</td>
<td>500 to 5000 CFM</td>
<td>± 0.5 %</td>
</tr>
<tr>
<td>Uniformity</td>
<td>--</td>
<td>± 0.5°F</td>
</tr>
</tbody>
</table>

#### Software
- Create Tests And Sequences for Automatic Operation
- User configurable data acquisition channels
- User configurable calculation channels
- Loop Calibration Utility
- Dedicated hardware checkout routine
- Color coded stability status indicators
- Stability tolerance adjustment on the fly
- Time-history graphing capability
- Automatic Test Report Generation
- Data File Management and Search Tools

#### Performance Measurement
- 3% agreement or better, indoor code tester to outdoor code tester.
- 1% repeatability of test results

#### Available Options:
- Low Dew Point Control to 0°F
- Automated Nozzle Open/Close System
- Cyclic Test
- EER, SEER, COP Automated Tests
- Defrost Test Automation
- HSPF Calculations
- Refrigerant mass-flow measurement and Refrigerant-side Capacity Calculation
- Voltage control of individual circuits

Note: The specifications shown above are typical. Tescor can customize your system to provide the performance that you desire.

Tescor manufactures a full line of Climate Control Test Equipment for the HVAC marketplace including the following: Balanced Ambient Calorimeters, Compressor Calorimeters, Life Cycle Test Benches, Compressor Slug Test Benches, Air Flow Code Testers, Surface Calorimeters, and Environmental Test Chambers.