### Cleanroom Design Criteria
#### Non-Pharmaceutical

<table>
<thead>
<tr>
<th>Classification (Fed Std 209E)</th>
<th>ISO Class 3 (1)</th>
<th>ISO Class 4 (10)</th>
<th>ISO Class 5 (100)</th>
<th>ISO Class 6 (1,000)</th>
<th>ISO Class 7 (10,000)</th>
<th>ISO Class 8 (100,000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Filter Coverage</td>
<td>100%</td>
<td>80 to 100%</td>
<td>25 to 50%</td>
<td>15 to 30%</td>
<td>5 to 15%</td>
<td></td>
</tr>
<tr>
<td>Air Changes</td>
<td>720+</td>
<td>400 - 600</td>
<td>300 - 500</td>
<td>140 - 260</td>
<td>70 - 140</td>
<td>25 - 60</td>
</tr>
<tr>
<td>Average FPM</td>
<td>75-100 FPM</td>
<td>60-90 FPM</td>
<td>50-80 FPM</td>
<td>20-40 FPM</td>
<td>10 - 20 FPM</td>
<td>4 - 8 FPM</td>
</tr>
<tr>
<td>Filter Rating</td>
<td>99.9999%</td>
<td>99.99%</td>
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<td>99.99%</td>
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</tr>
</tbody>
</table>

- **Ceiling**: Aluminium 2” Ceiling System
- **1½” Steel Gasketed T Bar**
- **Ceiling Support**: All-thread with Strut & Turnbuckles
- **12 GA wire to grid, 10 GA wire to filter @ Corner of Grid Intersection Only**
- **Ceiling Panel**: Cleanroom Blank Aluminium Panels
- **Vinyl Faced Gypsum Panels**
- **Foil Back Covered, all joints sealed or vinyl tape**
- **Wall System**: Aluminium Component – Flush Wall
- **Aluminium Component – Exposed Batten Strip**
- **Wall Panels**: Honeycomb Aluminium Conductive Finish
- **Aluminium Skin Panel with High Density Poly or EPS Foam Core**
- **Vinyl Coated Drywall**
- **Floor**: Mipolam
- **Mipolam / Epoxy Solids**
- **Epoxy Solids or Seamless Vinyl**
- **Base**: Coved Base Optional
- **Base**
- **Air Return**: Perforated / Grated Access Floor
- **Low Wall if Room Width ≤ 20’ (6m)**
- **Low Wall**
- **Low Wall or Ceiling**
- **Air Return Registers**: Floor Grilles with Optional Balancing Dampers
- **Filter Grilles with Optional Balancing Dampers**
- **Egg Crate**