The VACCO / CU Aerospace Propulsion Unit for CubeSats (PUC) is a delta-v propulsion system specifically optimized for CubeSats. The PUC is available in a variety of sizes from 0.14U to 1U with features that include minimal payload displacement, high delta-v, low mass, low power and a simple control interface.

Development hardware has been extensively tested including 75,000+ cold gas firings in a vacuum chamber.

The self-contained PUC includes an integral controller, propellant storage, propellant feed system, sensors and a 5.4 mN warm gas thruster. Reliability is ensured through simplicity of design, welded titanium construction and frictionless valve technology.

Features

- Scalable from 0.25U to 1U
- Minimal payload displacement
- High total impulse and delta-V
- 5.4 mN CU Aerospace MCD thruster
- Low power
- 15 watts firing in warm gas mode
- 0.055 watts in standby mode
- Simple control interface
- Reliable, frictionless valve technology

Performance Matrix

<table>
<thead>
<tr>
<th>Unit</th>
<th>Total Impulse (N/sec)</th>
<th>Delta-V, 3 kg CubeSat (meters/sec)</th>
<th>Delta-V, 4 kg CubeSat (meters/sec)</th>
<th>Dry Mass (grams)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25U</td>
<td>183</td>
<td>64</td>
<td>47</td>
<td>434</td>
</tr>
<tr>
<td>0.50U</td>
<td>320</td>
<td>121</td>
<td>87</td>
<td>568</td>
</tr>
<tr>
<td>1U</td>
<td>595</td>
<td>234</td>
<td>167</td>
<td>835</td>
</tr>
</tbody>
</table>

Performance characteristics are based on customer requirements. As such, they are not representative of component capabilities or limitations.
Sizes 0.14U to 1U Available