

# City University T5 Transonic/Supersonic Tunnel

## TS3

<p><b>Location:</b> London</p>	<p><b>Designation:</b> Transonic / Supersonic closed return, induction driven.</p>
<p><b>Owner(s):</b> City University London Northampton Square London, EC1V 0HB United Kingdom</p>	<p><b>Performance:</b>  <b>Mach Number:</b> 0.4 – 2.0 (max)  <b>Maximum Flow Speed:</b> n/a  <b>Reynolds No:</b> up to <math>20 \times 10^6/m</math> (max)  <b>Total Pressure:</b> 1 to 1.2 bar  <b>Dynamic Pressure:</b> n/a  <b>Total Temperature:</b> Ambient  <b>Turbulence intensity:</b> &lt; 0.5%  <b>Run Time:</b> 30 s (max)  <b>Typical Recharge Time:</b> 20 minutes.</p>
<p><b>Test Section Size:</b> 0.2 m x 0.25 m x 0.5m</p>	<p><b>Testing Capabilities:</b>  <b>Model Support:</b> internal 5-component sting balance (<math>-5^\circ</math> - <math>+20^\circ</math> alpha range, <math>\pm 180^\circ</math> roll).  <b>Data Acquisition:</b> Multiple channel simultaneous data acquisition.  <b>Outputs:</b> Forces &amp; moments, pressure.  <b>Flow visualisation:</b> Surface oilflow, Schlieren and shadowgraph.</p>
<p><b>Operational Status:</b> Active</p>	
<p><b>Number and Type of Staff:</b>  <b>Scientific:</b> 3+  <b>Technical Support:</b> 2</p>	
<p><b>Test support:</b> Workshop for wind tunnel model design, manufacture and modification capability.</p>	
<p><b>Specialist Rigs:</b></p> <ul style="list-style-type: none"> <li>• Quadrant</li> <li>• Slotted wall and solid wall roof and floor.</li> <li>• Floor mounted bump shock generators.</li> <li>• Compressed air supply.</li> </ul>	