

# Human-flow Interaction Wind Tunnel

<p><b>Location:</b> Manchester</p>	<p><b>Designation:</b> Human-flow Interaction Wind Tunnel</p>
<p><b>Owner(s):</b> British Cycling working in partnership with University of Manchester</p>	<p><b>Performance:</b></p> <p><b>Maximum Flow Speed:</b> 22 m/s  <b>Reynolds No:</b> <math>1.5 \times 10^6</math> /m  <b>Total Pressure:</b> 1 atm  <b>Dynamic Pressure:</b> Up to 300 Pa  <b>Total Temperature:</b> Room temperature  <b>Turbulence intensity:</b> ~ 0.2%  <b>Run Time:</b> Continuous  <b>Typical Recharge Time:</b> N/A</p>
<p><b>Test Section Size:</b> 2m x 2m x 5m</p>	
<p><b>Operational Status:</b> Operational</p>	
<p><b>Number and Type of Staff:</b>  <b>Scientific:</b> 4  <b>Technical Support:</b> 2</p>	
<p><b>Test support:</b> Model design, installation and testing</p>	<p><b>Testing Capabilities:</b></p> <p><b>Acoustic:</b> None  <b>Flow visualisation:</b> Thermography  <b>Aerodynamic loads:</b> six-component force balance  <b>Laser Measurements:</b> PIV</p>
<p><b>Equipment:</b> Six-component under floor force balance on a rotating turntable, Streamwise ProCap Professional, PIV, Thermography, hot-wire anemometry</p> <p><b>Specialist Rigs:</b> Measurements of aerodynamic drag of a manikin or a cyclist on bike or wheel chair and real-time imaging of rider posture</p>	