

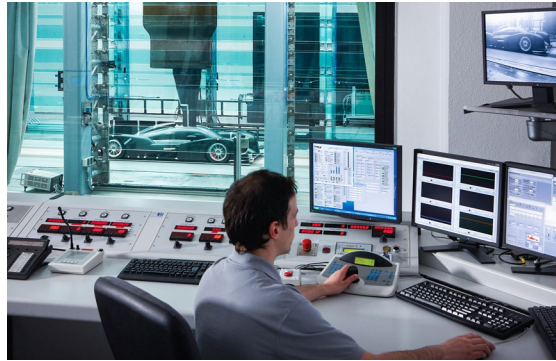
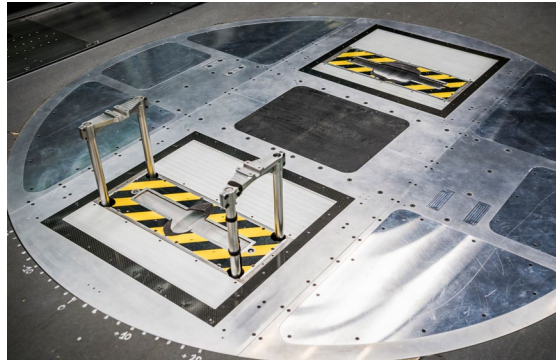
# THE ULTIMATE AERO EXPERIMENT



TGR-E's two near-identical wind tunnels were built to the highest specification and are equipped with endless stainless steel belt rolling roads. Both tunnels are fitted with permanent Robotic Particle Image Velocimetry (PIV) to visualise flow structures in X, Y and Z planes and Measurement Probe Arm (MPA) for local measurements of pressure field. Real time, high speed control and data acquisition for model and wind tunnel systems ensure maximum efficiency (time reduction) and accuracy. Live wind tunnel data analysis software available and customisable based on customer's formulae.

### **APPLICATIONS:**

- Full scale car testing with Active Ride Height System
- Model scale testing with continuous motion wheels-on approach
- WLTP Certified testing
- Motorbike testing including lean angle and active ride height with dummy or human rider
- Aircraft models or components
- Flexibility to test a wide range of models and aerodynamic components
- Thermal measurements
- Fully equipped and confidential workshop areas



## SPECIFICATIONS

<b>Airline</b>	Length: 67.2m / Width 24.5m
<b>Test section</b>	Width: 4.1m / Height: 3.7m / Length: 15m
<b>Max. Wind Speed</b>	70m/s
<b>Rolling Road</b>	Max. Speed 70m/s Width 2.4m / Length 7m
<b>Vertical Wheel Force Measurement (load range)</b>	Model scale 30 – 300N Full scale 500 – 7000N
<b>Main balance load range</b>	Drag 1800N Side Force 1400N Lift 5200N Roll moment 1100Nm Pitch moment 2600Nm Yaw moment 1100Nm Accuracy +/- 0.04% FS Repeatability +/- 0.02% FS
<b>Model motion system load range</b>	Drag 1500N Side force +/- 750N Lift 5200N Roll moment +/- 200Nm Pitch moment +/- 2600Nm Yaw moment +/- 250Nm