

Pedestrian PROTECTION

SAFETY • EURO-NCAP • PROTECTION • QUALITY FACILITIES

- Testing to European Directive 2003/102/EC
- Facility used to conduct official EuroNCAP tests
- On-site type-approval office
- Rapid data delivery
- Secure and cost-effective

Combining the original TRL-developed test system with Millbrook's facilities and expertise provides a well equipped, flexible and knowledgeable resource for both development and homologation.

Millbrook has established a strong reputation for achieving programme objectives quickly and costeffectively, using its many years of commercial experience to deliver precisely what is needed. Now, with the definitive test system, the facility can deliver a wide range of tests at every stage of a pedestrian protection programme.

Technical SPECIFICATIONS

Facility & Capability

The relocation to Millbrook of the TRL pedestrian test facility is part of a farreaching agreement between Millbrook and TRL to develop joint capability that meets customer needs.

The facility, still used by TRL for official EuroNCAP tests and consultancy-led projects, is operated by Millbrook and offered as part of Millbrook's test service portfolio.

Some of the benefits of testing at Millbrook are:

- Cost effective test service
- Quick set-up and test turnaround
- Immediate and customised data availability
- Assurance that tests are conducted strictly in accordance with defined protocols
- On-site VCA inspector
- Secure facility ensuring confidentiality
- Tests can be undertaken on whole vehicles, bodies or components.

Technical SPECIFICATIONS

Description of Tests

Based on the work of the European Enhanced Vehicle Safety Committee (EEVC) four tests have been defined:

- 1) Lower legform to bumper
- 2) Upper legform to bonnet leading edge or bumper
- 3) Child/small adult headform to bonnet top
- 4) Adult headform to bonnet top or windscreen

While the specifics of the procedures differ, in all cases impact points are selected at positions judged to be most likely to cause injury within specified areas determined by marking out the vehicle.

European Directive

In December 2003 the European Commission adopted the Directive 2003/102/EC on protection of pedestrians and other vulnerable road users.

The Directive implements requirements in two phases;

Phase 1 defines specific requirements for tests 1) and 3), while tests 2) and 4) are carried out for monitoring purposes

Phase 2 covers all tests with more stringent requirements

The Directive will be enforced in stages;

1st October 2005: New Types to meet the requirements of Phase 1 or Phase 2

1st September 2010: New Types to meet the requirements of Phase 2

31st December 2012: All new registrations to meet the requirements of Phase 1 or Phase 2

1st September 2015: All new registrations to meet the requirements of Phase 2

The definition of "New Type" is a vehicle that differs in essential aspects forward of the A-pillar.

Euro NCAP

The European New Car Assessment Programme (EuroNCAP) uses all four test types to replicate accidents involving child and adult pedestrians where impacts occur at 40kph (25mph). Impact sites are assessed and rated fair, weak and poor and the results published with an overall 'star' rating for Pedestrian Protection. According to EuroNCAP, so far the safest cars for pedestrian protection have achieved 5 stars.

Millbrook OVERVIEW

Millbrook is one of Europe's leading locations for the development and demonstration of every type of land vehicle, from motorcycles and passenger cars to heavy commercial, military and off-road vehicles. Located at the geographical centre of the UK automotive and fuels industry and situated centrally in the strategic Oxford to Cambridge Arc just 65 kilometres to the north of London, our custom-built facility provides virtually every test, validation and homologation service necessary for today's demanding programmes, complemented by a worldwide reputation for confidentiality, service and competitiveness.

Although significant work has been done commercially on behalf of many research organisations, Millbrook has always focused on real world applications and understand the constraints, limitations and budgetary controls that affect our customers. Our staff have experience and expertise from backgrounds in test work within vehicle manufacturers' engineering departments, so they know what their customers expect from a test. Putting working relationships first, and seeing things from the customer's point of view, means Millbrook's support will survive the test of time.