



CARDINGTON LABORATORY

Europe's largest single enclosed research and testing facility



The largest and tallest single enclosed research and testing facility in Europe, BRE's Cardington Laboratory is able to undertake experimental work, testing and reconstructions which our clients simply could not replicate elsewhere. The Cardington Laboratory is a part of BRE, the principal organisation in the UK carrying out research into building and construction and the prevention and control of fire.

It consists of: 50 m clear headroom - main hall 55 m x 247 m long - 750,000 m³ volume - 50 m x 70 m strong floor - fully opening one end

Resources

Cardington is extensively equipped with plant and equipment and houses a 70 m x 50 m strong floor which can support concentrated loads equivalent to those imposed by a 10 storey building. Part of the strong floor currently supports a full size eight storey office block which is undergoing extensive structural, fire and explosion testing for an international mix of private sector and governmental clients.

A new, seven-storey in-situ concrete structure and a five-storey timberframed building are now under construction and future test buildings are planned.

Other resources offered at Cardington include: bundled external fire and explosion areas, offshore and onshore gas and dust explosion cells, geotechnical boring equipment and instrumentation, extensive lifting, jacking and related plant, data logging and instrumentation, audio visual facilities and studio, office accommodation, secure, conditioned and hazardous storage, megastream communications, engineering, design and fabrication services, low speed dispersion wind tunnel, extensive fire calorimetry equipment and instrumentation, conference facilities, fire simulation and fire protection assessment facilities.

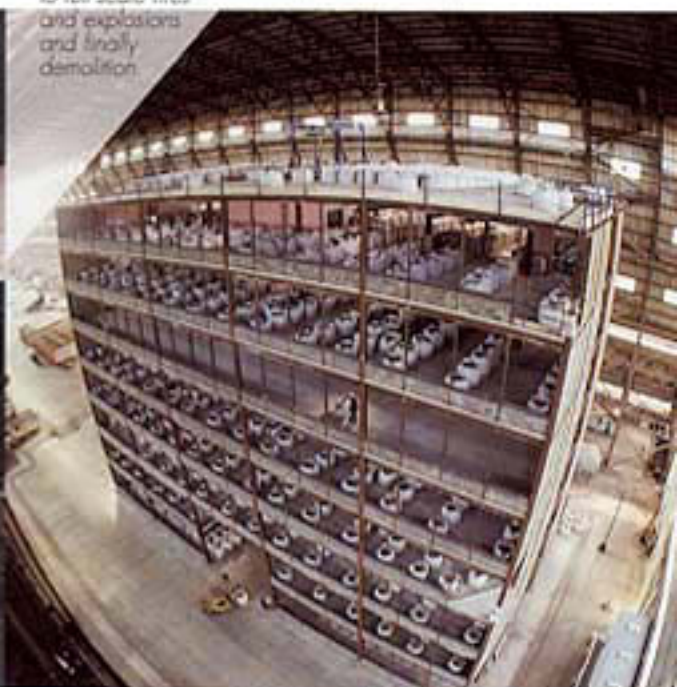
Work mix

We provide a wide range of cost effective solutions to meet our clients needs. Our work currently includes : full-scale building testing, full-scale fire research, controlled explosions, simulations and forensic reconstructions, structural and materials testing, dynamic testing, product demonstrations, trial assembly and buildability, product development and testing, and pollution dispersal modelling.

A full scale eight storey steel and composite concrete building is undergoing an extensive programme of international research and testing from the construction process through static and dynamic load tests to full scale fires and explosions and finally demolition



A Boeing 707 fuselage fitted with cabin water sprays is tested for the Civil Aviation Authority to assess their performance. The fire source is 200 litres of kerosene and temperature, smoke densities, toxic gas levels and other cabin conditions are monitored.



A column in a full size test building is heated to failure by mobile gas ovens.



CONTACT

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