GES — GEOTECHNICS, EARTHQUAKES AND STRUCTURES · UNIVERSITY OF BRISTOL

EQUALS — Earthquake and Large Structures Laboratory

UNIVERSITY OF BRISTOL · QUEEN'S BUILDING · SINCE 1987

One of Europe's most versatile six-degree-of-freedom earthquake simulators, with nearly four decades of seismic research and qualification testing.

Through BEELAB, the University of Bristol's commercial engineering testing service, EQUALS supports seismic qualification of mechanical, electrical and electromechanical equipment for the nuclear, power, telecommunications and building services sectors, alongside structural, vibration and fatigue testing.

6-DOF shaking table (the Octopod)

Platform	**3 m x 3 m**
Actuators	**8 hydraulic**
Payload	**up to 15 t**
Acceleration	**up to 2 g at full payload**
Frequency	**0-50 Hz**
Displacement / velocity	**+/- 150 mm / 1.2 m/s per axis**

Strong floor & strong walls

Anchoring channels	**Every 1 m, floor & walls**
Anchor capacity	**up to 25 kN/m**

Seismic qualification

Programmes run from test planning and RRS-based input synthesis through resonance searches and earthquake tests at increasing intensity — with a final test above the design level to demonstrate margin where the specification requires it — to a final quality-assured report. Standards include ANSI/IEEE 344, ANSI/IEEE 693, AC 156, BS EN 60068-3-3, ETSI EN 300 019, BNFL ET 372, Telcordia GR-63-CORE and the California Building Code.

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