

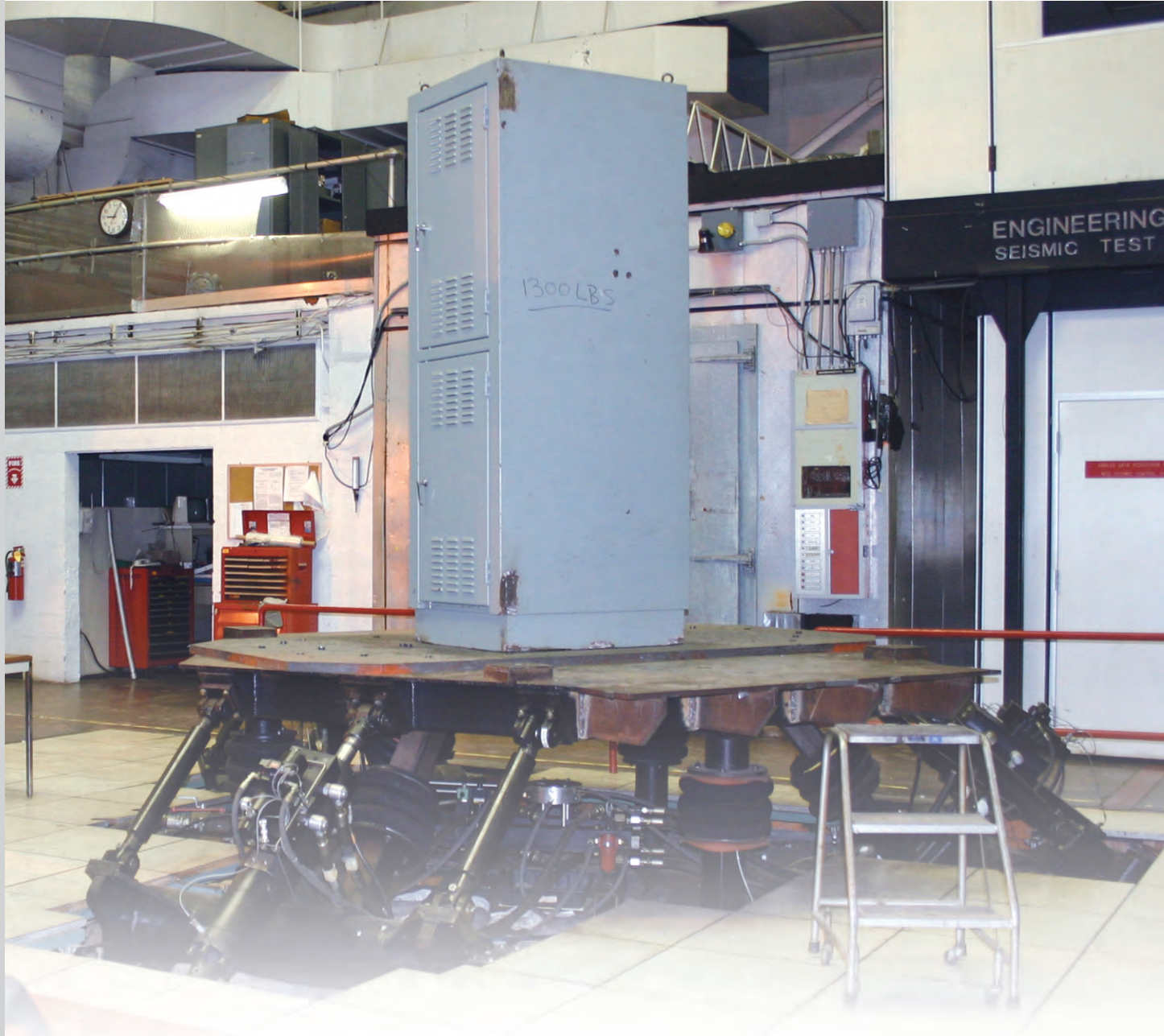


CLARK

Dynamic Test Laboratory, Inc.

A Division of Clark Testing Group

Clark Dynamic Test Laboratory Seismic Testing



The four shake tables at Clark Dynamic's test laboratory are designed and operated to satisfy the guidelines of IEEE-344/501/693 and Bellcore GR-63-CORE for seismic qualification of equipment. They are serviced by a 20 ton overhead crane located 29' above the tri-axial table.

All testing performed to strict MIL-STD, IEEE, IBC, UBC, NIST, Bellcore standards/methods under our 10 CFR 50 Appendix B Quality Assurance Program

 CLARK
Testing Services, LLC

 CLARK
Dynamic Test Laboratory, Inc.

Seismic Testing

 CLARK
Laboratories, LLC



Capabilities

Calibration & Standards Laboratory

The Clark Dynamic Calibration & Standards Laboratory repairs and calibrates measurement and test equipment (MT&E) and maintains direct traceability to NIST Standards.

- Load Testing - #20, 000
- Gas Flow - 50 cu. ft. hr.
- Humidity
- Accelerometers
- Air Flow - 2,000 fpm
- Water Flow - 3 gpm
- Temp. - RTD
- Load Cells

Seismic Testing

The shake tables are of different sizes to accommodate requirements varying from a high input acceleration levels of small equipment (control board components) to low input acceleration levels of large equipment (such as safety injection pump).

The Clark Dynamic tri-axial shake table is designed to generate independent tri-axial motions (of different magnitude). The bi-axial table can generate dependent of bi-axial motions (or simulated tri-axial motions of equal magnitude in three orthogonal directions). The input in either case could be sinusoidal, multi-frequency, or sine beat to achieve required input motion or response spectrum. The tri-axial shake table could also develop uni-axial or bi-axial motions. Clark Dynamic also features separate single axis shake systems for both horizontal and vertical applications.

A centralized data acquisition system with state-of-the-art electronics, including digital chatter monitoring systems and recorders, is used to accurately record test data as to ensure the test requirements are met.

Test Equipment

10 ft. Dia. Independent Tri-Axial Shake Table

Bare Table Weight:	About 5,400 lbs.
Actuator:	3-38,000 lbs. Force \pm 5 in Stroke
Servo valve:	600 gal./min. 50 ips Velocity
ZPA:	2g up to 10,000 lb. test unit and about 5g up to about 1,000 lb. test unit
Peak Spectral Acceleration:	15g - 18g

10 ft. Dia. Independent Tri-Axial Shake Table

Bare Table Weight:	1,000 lbs.
Table Angle:	35°
Actuator:	22,000 lbs. Force \pm 12 in Stroke
Servo valve:	150 gal./min. 100 ips Velocity
ZPA:	10g - 12g depending upon weight of test unit
Peak Spectral Acceleration:	35g - 40g

Single Axis Shake Table: Vertical

Bare Table Weight:	6,000 lbs.
Table Angle:	Vertical
Actuator:	55,000 lbs. Force \pm 1 in Stroke
Servo valve:	70 gal./min.

Single Axis Shake Table: Horizontal

Bare Table Weight:	4,600 lbs.
Table Angle:	Horizontal
Actuator:	30,000 lbs. Force \pm 3 in Stroke
Servo valve:	25 gal./min.

Data Acquisition/Monitoring Systems



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