

CYCLIC TRIAXIAL SYSTEM HX-100 / 604

Structural Behavior Engineering Laboratories Phoenix, Arizona



OUTLINE OF TESTING PROGRAM: Static and dynamic soils tests

Unconfined Compression Tests:

- Static Strength
- Cyclic Strength
- Creep
- Deformation Modulus
- Constant rate of stress increase
- Constant rate of strain increase

Triaxial Compression:

- Static Strength (axial-lateral and pore water pressure controls)
- Cyclic Strength (axial-lateral and pore water pressure controls with single or dual shift capability)
- Preconsolidation
- Deformation Modulus
- Constant rate of stress or strain increase

Liquefaction Tests



SYSTEM OVERVIEW

HX-100 triaxial cell

- Interchangeable platens (3.56 cm and 7.11 cm diameter soil specimens)
- Ratio length to diameter 3
- Lateral confining pressure up to 1033 kPa (plastic wall)
- Lateral confining pressure up to 2756 kPa (steel chamber-optional)

Actuator

- Air pressure
- Load ranges 445, 1112, and 2225 N
- Max air pressure from servo valve up to 1033 kPa dynamic mode and 1722 kPa static mode

Measurement devices

- LVDT - displacement
- Load cell - load measurements
- Pore water pressure transducers

Control Unit and Data monitoring system (process of upgrading)

- Servo controller module -SSM
- SBEL 604 master cabinet panel
- Function Generator