

# SOIL MECHANICS

## CIVIL ENGINEERING VIRTUAL LABORATORY

EXPERIMENT: 10

TRIAxIAL TEST

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### PROCEDURE:

- i. The sample is placed in the compression machine and a pressure plate is placed on the top. Care must be taken to prevent any part of the machine or cell from jogging the sample while it is being setup, for example, by knocking against this bottom of the loading piston. The probable strength of the sample is estimated and a suitable proving ring selected and fitted to the machine.
- ii. The cell must be properly set up and uniformly clamped down to prevent leakage of pressure during the test, making sure first that the sample is properly sealed with its end caps and rings (rubber) in position and that the sealing rings for the cell are also correctly placed.
- iii. When the sample is setup water is admitted and the cell is fitted under water escapes from the bleed valve, at the top, which is closed. If the sample is to be tested at zero lateral pressure water is not required.
- iv. The air pressure in the reservoir is then increased to raise the hydrostatic pressure in the required amount. The pressure gauge must be watched during the test and any necessary adjustments must be made to keep the pressure constant.
- v. The handle wheel of the screw jack is rotated until the underside of the hemispherical seating of the proving ring, through which the loading is applied, just touches the cell piston.
- vi. The piston is then removed down by handle until it is just in touch with the pressure plate on the top of the sample, and the proving ring seating is again brought into contact for the beginning of the test.