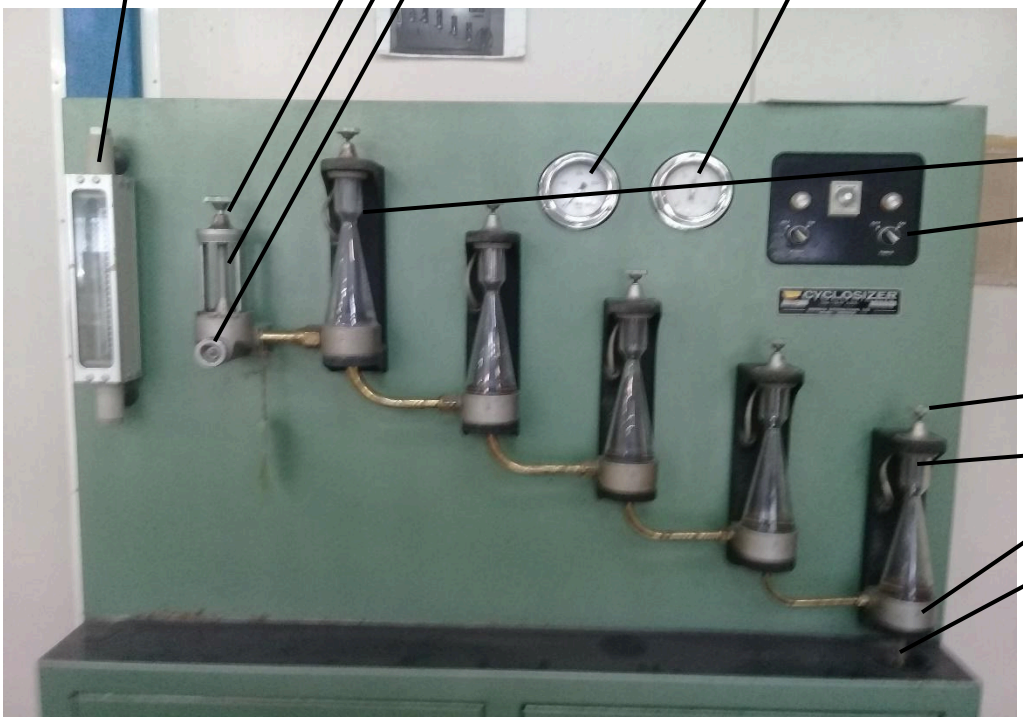
Mining Engineering Department
Papua New Guinea University of Technology, PMB Service,
LAE, Morobe Province, 411.

CYCLOSIZER

Sub Sieve Sizing



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OPERATION

Details of operating procedure for the cyclosizer are given in the operating manual which is supplied with the unit.

This sub-sieve unit is for sizing materials below -38µm.

Provide below is the general procedure but more detailed procedure will be provided during experiment

1.0 Weigh out 50 – 80g samples, mixed it in a beaker with water and then transfer the slurry to the sample container. Add Calgon or any dispersion during mixing when required.

2.0 Fit the sample container on panel, start pump and expel air first by opening the apex valve starting with cyclone 1and then to cyclone 5. During this time sample container valve must be closed.

3.0 Set water flow at 25% greater than the pre- determined separation flow rate, open port on sample container and obtained a preliminary distribution of solids to the cyclones (5 minutes)

4.0 Reduce flow rate to the pre- determined value and elutriate for 10 to 30 minutes, depending on precision required.

5.0 When elutriating is complete, increase the flow rate and discharge the solids of each apex chamber in turn through the apex valve. Collect the discharge the solids in separate beakers.

6.0 Filter, dry and weigh each fraction and calculate solids No .5 by difference.

Complied by Joseph Tera