

PIPETTE EQUIPMENT

The particle-size distribution is one of the most important physical qualities of a soil. The division of soils (soil classification) is primarily based on particle-size distribution.

When accurately determining the particle size in samples, in addition to the determination using sieves, other methods will need to be applied.

A simple method for the determination of the particle size is the pipette method.

After carbonates, organic substances and possible iron oxide have been removed (because of their binding function) the pipette method is used to determine the fractions of particles smaller than

38 μm .

The method is based on the difference in sedimentation speed between small and large soil particles. The sedimentation of the particles is the result of two opposing forces: gravity and friction resulting

from movement in a fluid medium.

In the pipette method a sample is pipetted at different times and different depths of the suspension of the sample in a measuring cylinder. Time and depth are determined applying the Law of Stokes. The pipetted suspension is condensed and dried and weighing determines the mass ratio of the pipetted fraction.

Eijkelkamp Agrisearch Equipment, in cooperation with research institutes, developed two models of pipette apparatus that meet the standards.

08.16.SA Pipette apparatus, table model in accordance with NEN 5753

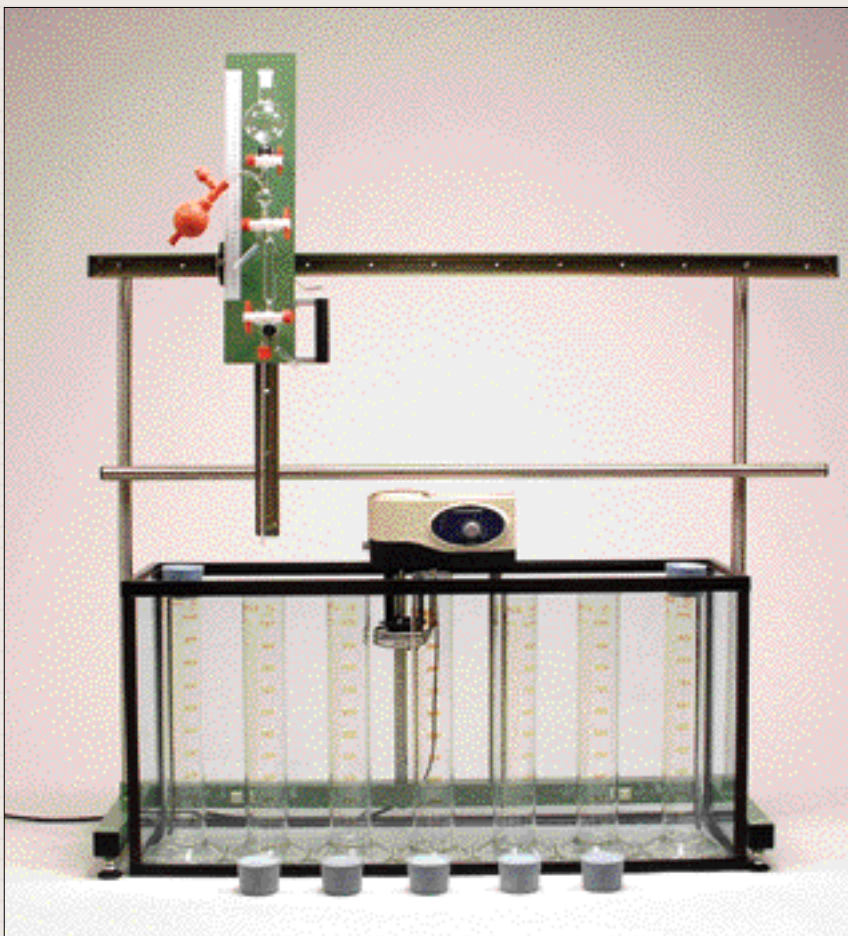
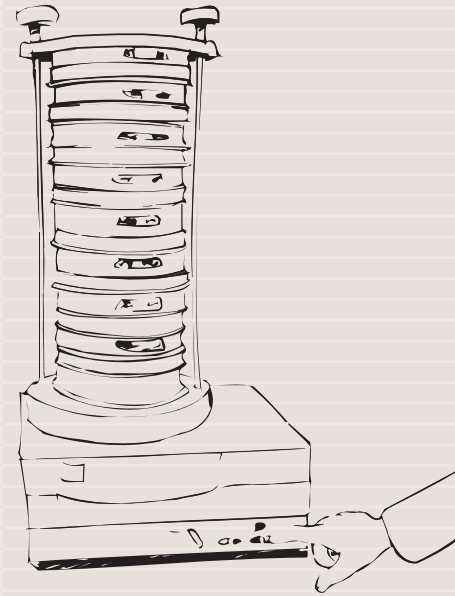
Using the basic set the fractions of 7 samples can be determined simultaneously.

The pipette apparatus can be placed on a laboratory table.



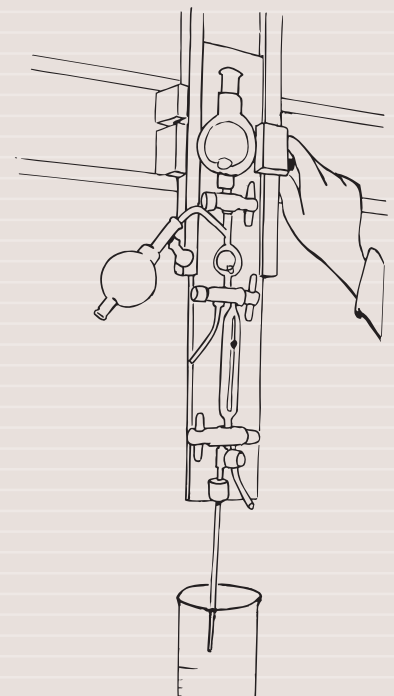
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The sample is pre-processed using the electro magnetic sieve shaker.



Pipette apparatus, table model

The pipette holder can be adjusted accurately.





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Among other items the standard set consists of: a runner with pipette holder, a table frame, a glass tank, a heating element with thermostat and stirrer, pipette upper section and pipette lower section, pipette balloon, glass sample cylinders, rubber stoppers and sodium hexametaphosphate.

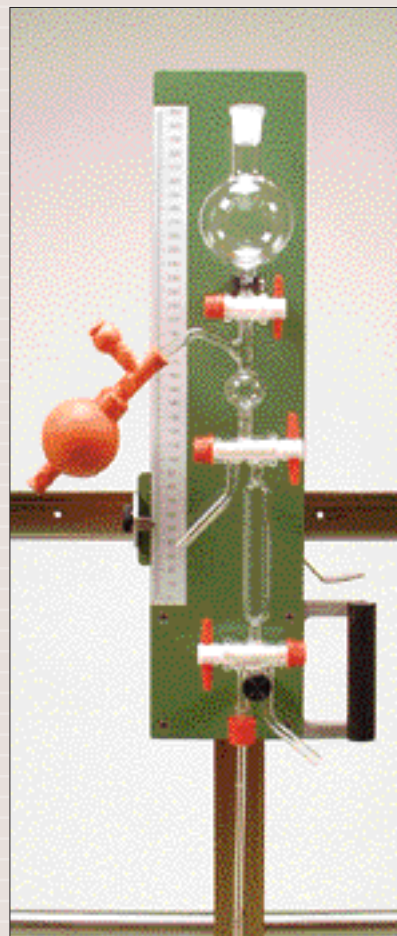
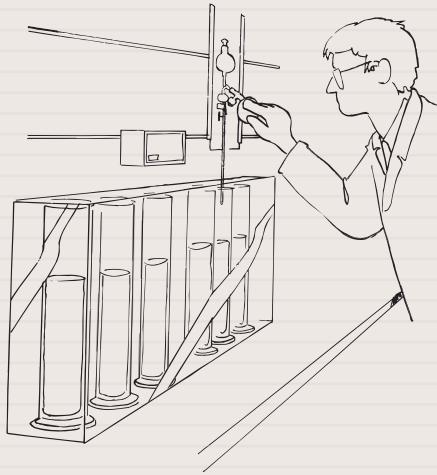
**08.16.5B Pipette apparatus, wall model
in accordance with NEN 5753**

Among other items the standard set consists of: a runner with pipette holder, a table frame, a glass tank, a heating element with thermostat and stirrer, pipette upper section and pipette lower section, pipette balloon, glass sample cylinders, rubber stoppers and sodium hexametaphosphate. A wall frame comes instead of the table frame.

Advantages

- ❑ The pipette apparatus meets the NEN 5753 standard and ISO/DIS 11277.
- ❑ Ergonomical working height.
- ❑ The whole is vibration free as the glass tank is independent of the heating element and the stirrer.
- ❑ Pipette holder and runner are designed with wear-resistant plastic toothed wheels.
- ❑ The apparatus has a large insert depth of 340 mm.

A sample is pipetted.



Pipette holder with pipette



Heating element with stirrer