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P1.80

PF-DETERMINATION (SANDBOX METHOD)

08.02.SA Sand/kaolin box for pF-determination (pF 2.0 - 2.7)

The standard set for pF-determinations pF 2.0 - 2.7 (0.1 - 1 bar) consists of a sand/kaolin box with control panel, an electronic suction level control system (pressure range 0 - 600 hPa) with integrated control panel, pressure sensor and 10 l tank, containers with synthetic sand, a container with kaolin clay and various accessories.

The sand/kaolin box is suitable for a maximum of 40 soil sample rings. The pF-determinations are executed on samples in the soil sample rings. These rings generally have a 100 cc contents.

In addition to the standard set a soil sample ring kit must be available also as well as cases with soil sample rings and aluminium soil sample boxes.

A balance and a drying oven are part of the minimum equipment.

The laboratory table on which the measuring

instrument is placed should be level and isolated against vibration.

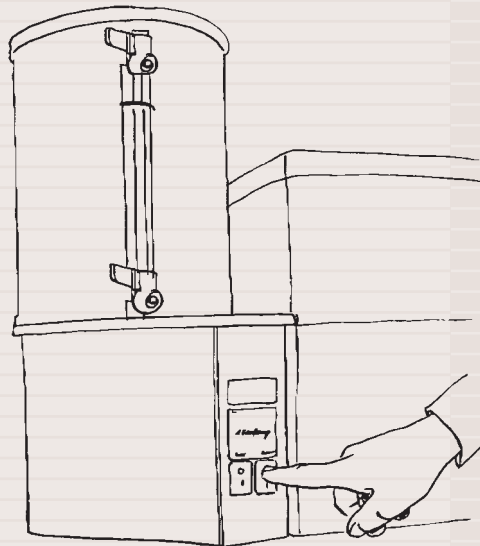
Before the measuring of the pF can be started the various parts must be mounted and the drain must be fitted with a filter cloth. Next the sand/kaolin box is filled in the proper manner with water, synthetic sand and kaolin clay (the sand/clay filling should not contain any air or water pockets). Excess drainage water is removed applying the automatic suction level control system.

The different suction on the samples is realized using the vacuum pump.

For the determination of the complete pF-range (0 - 2.7) the sand box and the sand/kaolin box can be applied in one single setup next to each other.

A filled box can be used for several years if it is inundated with water after each test. A copper ring prevents algal growth.

The suction is adjusted to the sand/kaolin box.



BENEFITS

08.02.SA Sand/kaolin box

- Shapes the largest part of the pF curve
- No mercury used, electronic vacuum pump
- Measuring range important for all soils
- Uses undisturbed samples 53 or 60 mm
- 40 samples allow large scale research
- Number of samples allow effective averaging
- Set-up can be used over and over for years
- Comprehensive photo manual for easy set-up



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