



Key Features

- Shapes the largest part of the pF curve
- No use of mercury, thanks to the electronic vacuum pump
- The large number of samples facilitates effective averaging
- Sustainable set-up that can be used repeatedly for years
- For all types of soil
- Uses undisturbed soil samples of 53- or 60-mm diameter

Additional Requirements

Correct use of this instrument also requires a soil sample ring kit, cases with soil sample rings and aluminium soil sample boxes.

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

The laboratory table on which the measuring instrument is placed should be level and isolated against vibration.

When researching the quantity of moisture available in the soil for plants and trees to grow, it's essential to determine the moisture characteristic (or pF-curve). The sand/kaolin box is suitable for a maximum of 40 soil sample rings and uses undisturbed samples of 53 or 60 mm in diameter.

The standard set for pF determinations of pF 2.0 - 2.7 (0.1 - 1 bar) contains:

- Sand/kaolin box with control panel
- Electronical suction level control system (pressure range 0 - 600 hPa)
- Pressure sensor
- 10 litre tank
- Containers with synthetic sand
- Container with kaolin clay
- Various accessories

Applications

- Soil physical laboratory research
- pF determination in the lab
- Irrigation research

The sandbox and the sand/kaolin box can be used together to cover a larger pF-range (0 - 2.7).

A filled box will last several years, if it is inundated with water after each test.

A copper ring prevents algal growth in the instrument.



Specification	
Maximum number of samples	40
Measuring range	2.0 - 2.7 pF
Reading accuracy	0.01 bar
Sample specification	undisturbed
Sample stored in	ring
Measured parameters	pF
Voltage	110 - 240 volt
Power supply	line voltage
Package size	145 x 62 x 52 cm
Weight	108 kg

Method

The test is done on undisturbed soil samples, which can be taken with a soil sample ring kit (07.53.SC).

Firstly, the samples are fully saturated and subsequently weighed with respect to the increasing values of the moisture tension. These moisture tensions are obtained by creating a series of under- and overpressure. Weighing of the samples after each adjustment yields the moisture content for each moisture tension.

