

## Automatic Digital Penetrometer

EN 1426 - ASTM D 5 - AASHTO T49 for determination of the needle penetration.

The penetration depth of the penetration needle is determined with an electronic position measuring system, which is decoupled from the plunger during the test. An influence on the load and friction is excluded, because of this an the free guidance of the plunger.

The run-up and touch down of the needle are carried out automatically via the measurement system. Manual joystick mode is also possible. Then the plunger is enabled by an automatic device and blocked again after the testing period. The test result is displayed on the graphical touch display. The plunger can easily be removed to calibrate its weight.

### Technical data

Dimensions	280 x 490 x 760 mm
Weight	26 kg
Electrical data	100/240 V, 50/60 Hz, 0,6 kW
Measuring range	0-300 penetration units (equivalent to 0-30 mm)
Resolution	0,01 mm
Test load	100 g (plunger 97.5 g + 2.5 g penetration needle)
Test time	free (adjustable from 0,01 second)

20-20670



### TOUCH PANEL

Easy and fast control via the well arranged display.

### Advantages:

- ▶ High precision through automatic detection of the sample surface
- ▶ Manual and fully automatic operation possible
- ▶ Internal memory for up to 15,000 tests

### More Penetrometers

#### Penetrometer

20-2050

#### Penetrometer with Timer Controller

20-2060

#### Digital Penetrometer

20-20665

## ACCESSORIES

(penetration needle 20-20711, preheating bath ...) are also required to carry out the test.

### Plunger Head 47,5 g

for the penetrometers 20-20665 and 20-20670 to take the penetration ball and cone.

20-20670E35

### Penetration ball

EN 13880-3 with shaft 27,5 +/- 0,1 g, 3,2 mm dia. for the use with plunger head 47,5 g.

20-20810

### Penetration Cone

EN 13880-2, ASTM D217, ASTM D937  
27,5 +/- 0,1 g, 3,2 mm dia.

Not suitable for 20-20670.

20-20811

### Penetration Water Bath 160 mm dia.

Stainless steel with integrated coil and two tube connection pieces for tempering with water.

20-2076



### Perforated Base Plate

used in the penetration water bath to place the test container.

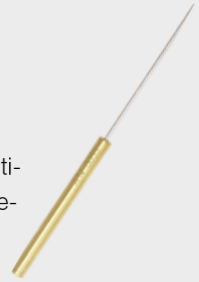
20-2078



### Penetration Needle 2,5 g / 3,2 mm magnetic

EN 1426, ASTM D5, AASHTO T49-07  
with magnetic head and engraved identification number. Suitable for penetrometers 20-20665 and 20-20670.

20-20711



### Stainless Steel Penetration Container

20-2084 Ø 55 mm, h. 35 mm

20-2086 Ø 55 mm, h. 45 mm

20-2088 Ø 70 mm, h. 45 mm

20-2089 Ø 70 mm, h. 60 mm



### Penetration Preheating Bath

Stainless steel with cover and immersion heater 25 .. 100 x 0,1° C for preheating of penetration test samples. Equipped with water circulation pump and attachment to connect to 20-2076. 230 V, 50/60 Hz.

20-2090



### Reducing Ring

Ø 53/36 to reduce sample quantity in penetration containers.

20-2092 20 mm

20-2093 30 mm

