

# SYD-2801F Low-Temperature Penetrometer



## Summary

This instrument is designed and made as per T0604-2011 Penetration Test for Bituminous Materials in JTG E20-2011 Standard Test Methods for Bitumen and Bituminous Mixtures for Highway Engineering and ASTM D5 Standard Test Method for Penetration of Bituminous Materials. It is used to determine the penetration of pavement petroleum asphalt, modified asphalt, liquid petroleum asphalt and emulsified asphalt. It is also suitable to test solid particle, powder, colloid and raw-food materials such as cheese, glycine, butter, cream, and leavening. It can be widely used in food industry, highway engineering, and other industrial fields.

## I. Main technical features

1. It adopts digital display to show the penetration number and two grades of timing control.
2. Specially designed low-temperature circulatory water bath can supply the constant temperature water into glass bath on the penetrometer. It creates a constant low temperature which can be preset for the specimen.

## II. Main technical specifications

### 1. Circulatory water bath

- (1) Power supply: AC20V $\pm$ 10%, 50Hz
- (2) Bath volume: 8.5L
- (3) Temperature range: (5.0~100.0) $^{\circ}$ C
- (4) Temperature accuracy:  $\pm$ 0.1 $^{\circ}$ C
- (5) Circulatory water quantity: 5L/min
- (6) Pump lift: 1m
- (7) Maximum power consumption: 1000W
- (8) Dimension: 420mm $\times$ 380mm $\times$ 900mm

### 2. Penetrometer

- (1) Timing controller: 5s or 60s can be selected. Bias within $\pm$ 0.1s
- (2) Needle holder: High accuracy digital display. Easy to use and observe. It can be moved to any position.
- (3) Resolution: 0.01m
- (4) Penetration accuracy:  $\pm$ 1 penetration
- (5) Maximum scale: 600 penetrations
- (6) Standard needle: 50mm, 2.5g $\pm$ 0.05g
- (7) Dimension: 280mm $\times$ 350mm $\times$ 700mm