# **SYD-2801C** Penetrometer (With Constant Temperature Bath)

### Summary

The instrument is designed and made as per the national standard of People's Republic of China GB/T 4509-1998/2010 Standard Test Methods for Penetration of Bitumen , GB/T269 Standard Test Methods for Cone Penetration of Lubricating Grease and Petrolatum and ASTM D217 Standard Test Methods for Cone Penetration of Lubricating Grease as well as T0604-2011 Bitumen Penetration Test in the industrial standard of People's Republic of China JTG E20-2011 Specifications and Test Methods of Bitumen and Bituminous Mixture for Highway Engineering. It is suitable for the asphalt penetration test and grease (or oil fat) cone into the degree of testing. The instrument can also be used for solid granule, powder, colloid, frozen materials such as body, and cheese, sugar, butter, wheat the spray, cream, fermentation and other food raw material inspection, in the food industry, transportation, highway engineering and other industries can be widely used.

## I. Main technical features

1. Digital display shows the penetration value, eye-catching visual.

- 2. There are 6 files in the time control device, and the accuracy is high.
- 3. With functions of mast coarse and fine tuning, convenient adjustment, accurate to needle.

4. Equipped with a pounding fat machine, constant temperature bath, water bath temperature automatic control, multi-usage, instrument is cost-effective.

5. Selection of standard needle, sample dish, thermometer and weight and other different configurations, can be suitable for the national standard 4509-1998 GB/T, 4509-2010 GB/T and E20-2011 T0604-2011 in the measurement of JTG standards

## The greatest features of this instrument

**are:** advanced mechanical design, easy lift adjustment; digital temperature control table, temperature control is accurate; penetration of digital test of high precision, reliable measurement results.

## **II.** Main technical specifications

- 1. Measurement range:  $(0 \sim 600)$  penetration
- 2. Timing device: you can select 5 s, 8 s, 10 s, 12 s,
- 30 s, and 60 s; Timing error is less than  $\pm 0.1$  s;
- 3. Resolution: 0.01 mm;
- 4. Penetration accuracy: ±1 penetration;
- 5. Standard needle: 50mm, 2.5g±0.05g
- 6. Heater power: 200 W;
- 7. Temperature control accuracy: 25±0.1 °C (Note:
- The ambient temperature shall not be higher than 20 °C);

8. Temperature control mode: by a high precision digital temperature controller;

- 9. Constant temperature bath: Hard glass bath;
- 10. Bath stirring: automatically stirred by a magnetic stirrer;
- 11. Standard cone: 102.5±0.05 g, as per GB/T269 and ASTM D217;

12. Lifting support: With coarse and fine adjustment functions; it is used to let the needle point just touch the sample surface.

- 13. Power Supply: AC ( $220 \pm 10\%$ ) V, 50Hz, power consumption is not more than 300W.
- 14. Dimensions: 280mm  $\times$  350mm  $\times$  700mm (length  $\times$  width  $\times$  height).
- 15. Others: Equipped with a cold light source and a magnifier. It is convenient for instrument operation.

