

Automatic Penetrometer for Material Consistency Testing

This automatic penetrometer determines the consistency and penetration resistance of various materials. It features a precise measuring system, automated needle release, and digital display for accurate and repeatable results.



Overview

Precision Material Testing

The Automatic Penetrometer is a sophisticated instrument designed for determining the needle and cone penetration of petroleum asphalt, modified asphalt, and liquid petroleum asphalt. It integrates advanced design concepts to ensure accurate, reliable, and repeatable test results, complying with national and industry standards for bitumen and bituminous mixture testing. Featuring automated controls, real-time digital monitoring, and an integrated temperature-controlled bath, this device streamlines laboratory workflows for enhanced efficiency.

Technical Performance

Measurement Range	600 penetrations
Resolution	0.1 penetrations
Timing Selection	60 s
Timing Error	< ±0.1 s
Temperature Control Accuracy	0.1 °C
Heating Power	200 W

Key Features

Hardware Components

- Magnetic Stirrer
- Hardened Glass Constant Temperature Bath
- Adjustable Up/Down Holder (Fine & Coarse)
- Integrated Light Source
- Magnifier for Observation

Automation & Control

Automatic Needle Penetration, Automatic Cone Penetration, Computer Communication Port, Data Storage (30 Groups), Micro-printer Integration

Compliance & Standards

Standards Met

GB/T 4509 • JTJ052 T0604

Operational Requirements

Power Supply	AC 220V±10%, 50 Hz
Max Ambient Temperature	20 °C