

SEMI AUTOMATIC KINEMATIC VISCOSITY APPARATUS



Semi Automatic Kinematic Viscosity Apparatus TT-445BZ

Semi Automatic Kinematic Viscosity Apparatus TT-445BZ conforms to ASTM D445, the Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and Calculation of Dynamic Viscosity).

Semi Automatic Kinematic Viscosity Apparatus TT-445BZ is used to test liquid petroleum products, both transparent and opaque, by measuring the time it takes for a volume of liquid to flow under gravity through a calibrated glass capillary viscometer. The dynamic viscosity, η , can be obtained by multiplying the kinematic viscosity, ν , by the density, ρ , of the liquid at a constant temperature. This method covers a range of kinematic viscosities from 0.2 to 300,000 mm²/s at all temperatures.

APPLICATIONS

The primary application of this apparatus is to determine the kinematic viscosity of both transparent and opaque liquid petroleum products, in compliance with the ASTM D445 standard.

It works by semi-automatically measuring the time it takes for a volume of liquid to flow under gravity through a calibrated glass capillary viscometer. The apparatus can then automatically calculate the viscosity and viscosity index. The results can also be used to determine the dynamic viscosity of the liquid



FEATURES

- Equipped with a large LCD and an independently developed embedded temperature control system, the apparatus features an attractive and rational plastic injection integrated display screen frame. Additionally, it includes an authority management function, effectively preventing non-professionals from altering key parameters of the analyzer.
- Features a double-layer transparent round glass constant temperature bath with a 20L glass cylinder that provides heat preservation and explosion-proof capabilities.
- Includes a temperature correction function; however, the correction value is lost after power-off.
- Utilizes LED lighting to illuminate the capillary line, ensuring clarity without being dazzling.
- Comes with a dedicated viscometer holder for easy operation.
- Offers automatic timing, calculation, and conversion to the viscosity index.
- Equipped with an embedded thermal printer that operates quietly, quickly, and produces clear results.

TECHNICAL SPECIFICATIONS

Technical Specifications

Specification	Value / Description
Temperature range	Ambient to 100°C, adjustable
Accuracy	±0.1°C
Heating power	1.5KW
Test stations	4
Rated voltage	AC220V±10%, 50Hz (110V also available)

Specification	Value / Description
Ambient temperature requirement	5°C to 40°C
Relative humidity	≤85%

Configuration / Packing List

No.	Name	Specification	Unit	Qty	Remark
1	Main Unit	-	Set	1	-
2	Thermometer	40~100°C	Piece	2	-
3	Portable cooling unit	-	Set	1	-
4	Stop watch	-	Piece	1	-
5	Viscometer	1.0 / 1.2 / 1.5 / 2.0 / 2.5	Set	4	As customer's demands
6	Viscometer holder lid	-	Piece	4	-
7	Thermometer rubber plug	-	Piece	1	-
8	Power line	-	Piece	1	-
9	Fuse	-	Piece	2	-
10	User manual	-	Set	1	-
11	Certificate	-	Set	1	-



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