Rotational Viscometer

LT-AS1000 | Liquid consistency assessment with a rotating spindle

Digital measurement • Immersion temperature sensor • RS232 interface



10-2,000,000 cP

VISCOSITY MEASURING RANGE

0-100 °C

TEMPERATURE MONITORING RANGE

ASTM D2196 • ASTM D4402/D4402M • EN 13302 • AASHTO T316

Photographs and Measuring Assembly

Measuring head, specimen section, digital controls and adjustable supports

The LT-AS1000 converts the resistance of a liquid against a rotating spindle into a viscosity value. Spindle and speed selection, temperature monitoring and digital records support assessment of oils, chemicals and bituminous binders.

DIGITAL CONTROLS

Manage the measurement procedure and a preset test duration through the timer function.

DATA CONNECTION

The RS232 interface supports transfer to a computer using compatible software.



MEASURING HEAD

Resistance to spindle rotation inside the specimen is transmitted to the measuring system.

SPECIMEN SECTION

Select a suitable spindle and specimen position to prepare the measuring assembly.



Digital measuring head and specimen connection



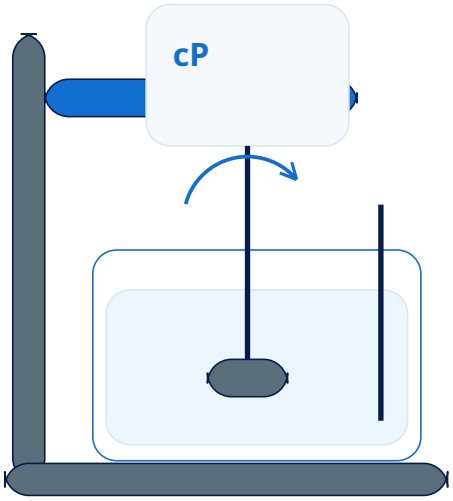
Specimen section and adjustable support feet

LT-AS1000

Viscosity Measurement with a Rotating Spindle

Select spindle • Monitor temperature • Rotate and measure • Record

ROTATION + SPECIMEN RESISTANCE + VISCOSITY



SPINDLE: ROTATES INSIDE THE SPECIMEN

RESISTANCE: CONVERTED INTO VISCOSITY

RECORD TEMPERATURE AND ROTATIONAL SPEED

Report viscosity together with measuring conditions

REPRESENTATIVE ROTATIONAL MEASUREMENT DIAGRAM • NOT TO SCALE

Select Spindle and Speed

Choose a suitable spindle and rotational speed for the specimen. Level the instrument.

Monitor Temperature and Measure

Immerse the spindle correctly. Monitor temperature and measure for the selected duration.

Record the Data

Record viscosity, temperature, spindle and speed; transfer through RS232 when required.

Spindle rotation creates resistance inside the liquid. The instrument measures this resistance and determines viscosity for the selected spindle and speed. Speed changes can affect non-Newtonian specimens, so comparisons require defined measuring conditions.

Temperature Monitoring and Conditioning

The immersion sensor monitors temperature from 0 to 100 °C. For comparisons, stabilise the specimen at the selected temperature and record temperature together with the result.

Binder testing requires a sensor, specimen container and thermal conditioning arrangement suitable for the method temperature. Plan temperature monitoring and specimen conditioning together.

Timer and Digital Records

The timer runs measurement for a preset period. RS232 transfers data to a computer; compatible software allows results to be examined as graphs and tables.

A compatible printer is optional. Keep specimen identification, spindle selection, speed, duration and temperature in the same record; clean the spindle between measurements.

Technical Specifications and Measuring Workflow

LT-AS1000 | Viscosity, temperature monitoring and data management

Technical Specification	Value / Description
Product Code	LT-AS1000
Viscosity Range	10-2,000,000 cP (mPa·s)
Measurement Accuracy	Approximately ±1.0%
Temperature Monitoring	0-100 °C • Immersion-type sensor
Measuring Principle	Resistance to rotating spindle movement
Duration Control	Preset timer function
Computer Interface	RS232 • Transfer through compatible software
Data Analysis	Graphs and tables • Optional compatible printer
Installation	Spirit level • Height-adjustable feet
Relevant Methods	ASTM D2196 • D4402/D4402M • EN 13302 • T316

Record Spindle, Speed and Temperature Together

Use consistent specimen conditions for comparisons. Report viscosity with spindle, speed, temperature and duration; configure the measuring assembly for the selected method.

Rotational Viscosity Workflow

01
Prepare
Prepare specimen and level the instrument.

02
Select / Set
Select spindle, speed and duration.

03
Measure
Monitor temperature and measure viscosity.

04
Record
Transfer results together with conditions.

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