

Automated Viscometry Systems for Lubricants and Petroleum Products



Coenecoop 715 Tel : +31 (0)182-302990
2741 PW Waddinxveen Fax : +31 (0)182-302999
The Netherlands info@omnitek.nl

OMNITEK

www.omnitek.nl

Koehler Instrument Company is proud to be an authorized distributor of Omnitek BV in the United States, Canada, and Mexico.

test method

For the determination of the kinematic viscosity, ν , of liquid petroleum products, both transparent and opaque, by measuring the time 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.

Omnitek BitU-Visc viscometry system

- Conforms to ASTM D445, D446, D2170; AASHTO T201
- For high temperature, high viscosity applications
- Fully automatic measurement and cleaning
- Standalone or PC control
- Preheated dual solvent cleaning

The Omnitek BitU-Visc has been specifically developed to cover sample types which pose great challenges to automatic sampling, measurement and cleaning, because of their high pour point and viscosity.

The instrument was designed to be versatile and flexible, yet easy to use to cover the hardest applications. Different models are available with 1 or 2 viscometer tubes, allowing for the analysis of a wide range of viscosities and sample types.

Viscometer tubes are based on the well-known and proven Ubbelohde design. Using specially designed thermal sensors, these tubes allow the detection of fully opaque fluids without any problems or limitations and eliminate the need to use the reverse flow tubes. The standard configuration offers viscosity measurement up to 150°C and sample preheating up to 200°C. Sophisticated temperature control ensures that measurements are carried out well within the required temperature stability. The system features an innovative single position auto-sampling which provides integrated heating of the sample up to 200°C and uses preheated solvent to effectively clean the viscometer tube. The BitU-Visc uses the special designed duplo viscometer tubes for unstable samples such as vacuum residues, additives, crude oils, waxes, heavy fuel oils, polymers, asphalts, etc., which typically show poor determinability when sampled repeatedly. These tubes have 2 measuring sections with an approximately similar tube constant. This allows for an actual duplo determination while only sampling once.

The instrument requires a PC for full operation, which is controlled through an advanced PC software application but it can also be controlled as a stand-alone unit through the responsive color touchscreen interface. PC software allows the operator to specify optimized and fully customizable test methods for each individual sample with the click of a mouse.



BitU-Visc 110 Omnitek BitU-Visc Automatic Viscometry System

specifications

Conforms to the specifications of:

ASTM D445, D446, D2170; AASHTO T201

Measuring Range: Up to 120,000 cSt, Up to 150°C

Temperature Range: 15 to 150°C

Temperature Stability:

15°C – 100°C: $\pm 0.01^\circ\text{C}$

100°C – 150°C: $\pm 0.03^\circ\text{C}$

Sample Volume: 12 mL

Viscometer Type: Ubbelohde-based

Sensor: Thermal

Data Export: USB

Electrical Requirements:

115V-240V 50/60Hz

950 kW

Included Accessories

20-fold Viscometer Tubes

Standard Equipment

High Temperature Bath Oil

PC Software

Reference Standards

ordering information

| catalog no. | description |
|----------------------|---|
| BitU-Visc 110 | Omnitek BitU-Visc Automatic Viscometry System, 1 Independent Bath, 1 Viscometer Tube per Bath |
| BitU-Visc 120 | Omnitek U-Visc Automatic Viscometry System, 1 Independent Bath, 2 Viscometer Tubes per Bath |

Specify voltage requirements on quote requests and orders



85 Corporate Drive, Holtsville, New York 11742
1-800-878-9070 (in u.s. only) TEL: +1 631 589 3800 FAX: +1 631 589 3815
Email: sales@koehlerinstrument.com www.koehlerinstrument.com