

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 U-Visc viscometry system

- Conforms to ASTM D445, D446; ISO 3104, ISO 3105; IP 71
- Autosampler carousel
- Vacuum or Pressure sampling
- Fully automatic viscometry system

The Omnitek U-Visc combines several unique features, making it the instrument of choice in many applications, ranging from QC to R&D to used oil analysis. While offering full compliance with ASTM D445/446, the specially designed viscometer tubes cover a 100-fold range.

The tubes are based on the well-known and proven Ubbelohde design, but only require 8-12 ml of sample and approx. 10-15 ml of solvent for each cleaning cycle. Available with single or dual solvent cleaning, the instrument measures kinematic viscosity in lubricants between 0.15 and 25,000 mm²/s.

Designed to be versatile and flexible, yet easy to use. Different models are available ranging from 1 bath with 1 or 2 tubes, up to 2 baths with 1 or 2 tubes per bath, where each bath works independently. Sophisticated temperature control ensures that measurements are carried out according to D445 requirements. Each bath features a sampling tray with 16 samples per tube, allowing completely unattended operation at different temperatures. Depending on the viscosity of the sample, the instrument can process up to 10 samples per tube per hour, leading to a maximum capacity of up to 40 samples per hour, satisfying even the needs of high-volume labs running several hundred samples per day.

The U-Visc requires a PC for operation but can also be controlled as a stand-alone unit through the responsive color touchscreen interface. For data collection, storage, calculations and reporting, an advanced PC software application is provided with the instrument, which can gather data from multiple instruments simultaneously.

If the baths are run at 40 and 100°C, the instrument will automatically calculate the sample's Viscosity Index, based on the results from both baths.



U-Visc 220
Omnitek U-Visc
Automatic Viscometry System

specifications

Conforms to the specifications of:

ASTM D445, D446; ISO 3104, ISO 3105; IP 71

Measuring Range: 0.15 – 25,000 cSt at 40°C

Temperature Range: 15 to 150°C

Temperature Stability:

15°C – 100°C: ±0.01°C

100°C – 150°C: ±0.03°C

Sample Volume: 8 to 16 mL

Viscometer Type: Ubbelohde-based

Sensor: Thermal / Optical

Data Export: USB

Electrical Requirements:

115V-240V 50/60Hz

950 kW

Included Accessories

100-fold Viscometer Tubes

Dual Solvent Injection

PC Software

Bath Oil

Reference Standards

Standard Equipment

ordering information

catalog no.	description
U-Visc 110	Omnitek U-Visc Automatic Viscometry System, 1 Independent Bath, 1 Viscometer Tube per Bath
U-Visc 120	Omnitek U-Visc Automatic Viscometry System, 1 Independent Bath, 2 Viscometer Tubes per Bath
U-Visc 210	Omnitek U-Visc Automatic Viscometry System, 2 Independent Baths, 1 Viscometer Tube per Bath
U-Visc 220	Omnitek U-Visc Automatic Viscometry System, 2 Independent Baths, 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