Using a “Houillon” capillary tube, ISL's VH Series Viscometers automatically determine kinematic viscosity of lubricating oils, used oils, fuels, polymers and similar materials over a wide viscosity range. Initially developed for lubricant blending facilities, research laboratories and used oil monitoring where small sample size and quick results were required, the ISL VH viscometer offers exceptional performance, providing results in 60 seconds using less than 1 ml of sample.

The Model VH1 integrates a single solvent capacity for tube cleaning, while the Model VH2 accommodates two solvents, offering added flexibility in solvent selection for efficient tube cleaning and drying. Furthermore, the VH2 withstands the use of aggressive solvents.

In both models, ISL’s custom Windows-based management software enables central monitoring of up to 16 capillaries spanning up to 4 baths. Results are displayed, saved to the database, and printed or sent directly to a LIMS following user-defined protocols. With 40°C and 100°C bath temperatures programmed, viscosity index can be performed, calculated and printed within minutes.

In compliance with:
- ASTM D7279
- ASTM D2270

In correlation to:
- ASTM D445
- ASTM D341
- IP 71
- IP 226
- EN3104

Houillon Viscosity Method
The term “Houillon” refers to the specific capillary tube used to measure viscosity in ISL's VH systems. The principle:
- based on straight flow approach
- requires less than 1ml of sample, therefore speeding the warm-up and analysis time. Because the specimen flows through the detection points only once, the houillon method is ideal for both transparent and opaque samples.
Rapid, Smart and Versatile Operation
- Modular design with ultimate configuration flexibility — grows to accommodate increasing workload demands
- Enables up to 16 simultaneous test runs
- Easy constant calibration with reference fluids
- ±0.01ºC bath temperature stability
- Built-in cooling coil for perfect stability at sub-ambient temperatures
- Rapid bath temperature adjustment and stabilization
- Informative on-screen and printed reports; unlimited results storage; LIMS export following user-defined protocols
- Easy tube replacement in minutes; no need to drain bath media

Efficient Cleaning Procedure
- Automated cleaning system, individually programmable for each tube
- Minimal solvent consumption for cleaning cycle
- All solvent removed under vacuum, not under pressure
- Enhanced cleaning options with Model VH2:
  - Dual-solvent washing option for hard-to-clean samples and fast drying
  - Withstands use of aggressive solvents

Specifications

Ordering Information
ISL’s Automatic Houillon Viscometers are delivered with main cables, spirit level, funnel, bath draining tube, tube bath cap, dust proof cover, four Houillon tubes,* and four detection clamps. Select from 115 or 230 VAC.

* Contact your PAC representative for list of tube constant choices.

Standard Test Method
In compliance with: ASTM D2729, ASTM D2270
In correlation to: ASTM D445, ASTM D341, IP 71, IP 226, EN3104

Performance
- Viscosity Range: 2 to 2000 cst (mm²/s) at 40ºC
- Temperature Range: User programmable: 20ºC to 120ºC
- Bath Temperature Stability: ±0.01ºC

Documentation
On-screen and printed reports: date & time, viscosity, sample ID, average viscosity, bath & tube number, viscosity index, temperature for a given viscosity, and 100ºC bath temperatures are programmed

Powerful PC-based Data Management
- Standard and/or averaged viscosity measurements
- Viscosity Index computation in minutes when 40ºC and 100ºC bath temperatures are programmed
- Tags outlier results according to user preferences
- Informative evaluation reports:
  - Viscosity for a given temperature
  - Blends
  - Temperature for a given viscosity
  - Viscosity index
- Saves calibration parameters for multiple bath temperature settings, making bath immediately ready for use following a temperature change (i.e. no need to recalibrate)
- Diagnostic menus for service

ILS by PAC
ISL is a global provider of scientific apparatus and instruments for testing petroleum and petrochemical products in the lab and online. More than 20 automatic analyzers bearing the ISL brand are recognized for increasing test precision, boosting laboratory efficiency and reducing costs.