

Leading viscosimetry technology  
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≡ Fungilab





### **Fungilab's new branch in New York (US)**

The roots of our company are to be found in Barcelona, which is still today home to FUNGILAB S.A.'s headquarters, where design, engineering and manufacturing take place for all of our high quality products for viscosity measurement.

Year after year we have developed new products, introduced new updates to our products and improved our services. During all these years, FUNGILAB S.A. has focused in showing commitment to our clients. Today's business world faces great challenges and requires fastest reaction to the demands in the market.

For this reason, FUNGILAB S.A. has taken the chance to settle a new branch in the United States (in Bohemia, New York): FUNGILAB, INC. will be offering all FUNGILAB S.A. services and products. Since August 2010 FUNGILAB INC. team takes over the sales and marketing responsibility for US market, including the technical support, customer service, warehouse, field sales support and management in this area. Our team will give you support in all business areas for covering all your clients needs in viscosity products with a highly qualify service and fast distribution.

All these new steps will ensure the best application consultation, product availability and product service to our customers in the US market. Our goals are to keep developing our projects and to improve our technology, expanding our services and equipment to everyone. FUNGILAB, INC. will contribute to these goals and to gain a remarkably higher market share and satisfy a large number of new clients. On the file attached you will find all related information on the company and our products and services.

Please, feel free to contact us in FUNGILAB S.A. or FUNGILAB INC. in any time, we will be glad to give you our best support.

Best regards,

**J.J. Buira**  
General Manager  
FUNGILAB, INC





## Specialized in viscosimetry

To all our clients,

The trajectory of our company since its foundation has been distinguished by the continuous eagerness for commitment and evolution on our production and services.

This way of action has taken us to continuously improve the products that we produce.

Year after year we have offered updates to our products.

Now, we have the pleasure to present you the most modern and better line of rotational viscometers.

This equipment assembles an attractive design with the most advanced electronic technology which places us in vanguard on this type of equipment.

The Fungilab Series present remarkable updates such as touch keyboard which provides the client an easy handle, includes a new software that provides more accurate analysis of samples.

Characteristics such as visualisation of flow curves and additional options as step, multistep or ramp, generate a complete menu that offers important advantages for the final user. The USB connection provides the possibility of downloading the data into any computer.

Besides all the accessories included on our viscometers, the company keeps investing on the development of other equipment related with viscosity and is extending our offers to our clients, and complete the range with the capillary viscometers, cup viscometers and the Hoppler viscometers.

Hoping to satisfy our clients, you can consult and find our products and services in our web page as well as attend to our international exhibitions

[www.fungilab.com](http://www.fungilab.com)

**Alpha series**  
viscometers allow  
fast and accurate  
viscosity readings.

They are low budget  
and easy to use.

# Alpha Series



## Main Features

- > Data displayed
  - Selected speed r.p.m
  - Selected spindle SP
  - Viscosity reading cP (mPa•s)
  - Percentage of full scale %
- > Relative and absolute viscosity.
- > Unit converter SI to CGS.
- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > User-enabled calibration.
- > 10 language options.

## Standard delivery

The equipment is supplied complete with standard spindles (4 spindles for L model, and 6 spindles for R and H models), viscometer stand and spindle protector.

## Technical File

- > Precision:  $\pm 1\%$  of full scale.
- > Resolution:
  - Using low viscosity adapter: 0.01
  - For lower than 10.000 viscosity cP: 0.1
  - For viscosity equal to or above 10.000 cP: 1
- > Repeatability: 0.2%
- > Supplied at 100-240 VAC, 50/60 Hz

## Spindles

AISI 316 stainless steel spindles, easily identified by number and letter when changed according to range of viscosity.

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
V100003	ALPHA L	20 - 2.000.000	0.3 - 100	18
V100002	ALPHA R	100 - 13.000.000	0.3 - 100	18
V100001	ALPHA H	200 - 106.000.000	0.3 - 100	18



## Smart series

Indispensable in  
QC and R&D  
laboratories.

## Smart Series



### Main Features

- > Touch key board 6 keys.
- > Direct readout on a graphic display.
- > Data displayed:
 

Selected speed	r.p.m.
Selected spindle	SP
Viscosity reading	cP (mPa.s) or cSt
Percentage of full scale	%
Sample temperature	°C or °F (Optional)
Shear Rate (with coaxial spindles)	SR (s-1)
Shear Stress (with coaxial spindles)	SS (N/m <sup>2</sup> )
Density (introduced by the user)	g/cm <sup>3</sup>
- > Viscosity reading: dynamic viscosity (cP or mPa.s) or kinematics viscosity (cSt).
- > Unit converter SI to CGS.
- > Program features:
  - Time to torque: target torque pre-setting device.
  - Time to stop: target time pre-setting device.
  - 10 working memories.
- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > Temperature reading by PT100 (optional).
- > User-enabled viscosity and temperature (optional) calibration.
- > 10 language options.
- > Interface: USB.
- > Datalogger Software: USB allows data transfer to a PC Excel format.

### Standard delivery

The equipment is supplied complete with standard spindles (4 spindles for L model, and 6 spindles for R and H models), viscometer stand and spindle protector, carrying case, USB cable and Datalogger Software.

### Technical File

- > Precision:  $\pm 1\%$  of full scale
- > Resolution:
  - With low viscosity adapter: 0.01
  - For lower than 10.000 viscosity cP: 0.1
  - For viscosity equal to or above 10.000 cP: 1
- > Repeatability: 0.2%
- > Thermometer features:
  - Temperature margins: 0°C to +100°C
  - 32°F to 212.0 °F
  - Resolution: 0.1°C / 0.1722 °F
  - Precision:  $\pm 0.1$  °C
  - Type of probe: PT100
- > Supplied at 100-240 VAC, 50/60 Hz

### Spindles

AISI 316 stainless steel spindles, easily identified by number and letter when changed according to range of viscosity.

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
V200003	SMART L	20 - 2.000.000	0.3 - 100	18
V200002	SMART R	100 - 13.000.000	0.3 - 100	18
V200001	SMART H	200 - 106.000.000	0.3 - 100	18

## Expert series

Add essential performances to determine viscosity and other rheological features of homogeneous samples.

# Expert Series



## Main Features

- > Touch key board 12 keys.
- > Direct readout on a graphic display.
- > Data displayed:
 

Selected speed	r.p.m.
Selected spindle	SP
Viscosity reading	cP (mPa·s) or cSt
Percentage of full scale	%
Sample temperature	°C or °F
Shear Rate (with coaxial spindles)	SR (s <sup>-1</sup> )
Shear Stress (with coaxial spindles)	SS (N/m <sup>2</sup> )
Density (introduced by the user)	g/cm <sup>3</sup>
- > Viscosity reading: dynamic viscosity (cP or mPa·s) or kinematics viscosity (cSt).
- > Unit converter SI to CGS.
- > Program features:
  - Time to torque: target torque pre-setting device.
  - Time to stop: target time pre-setting device.
  - Customizable Options.
  - Programmable.
  - Step.
  - Multistep.
  - Ramp.
  - 10 working memories.
- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > Temperature reading by PT100.
- > User-enabled viscosity and temperature calibration.
- > 10 language options.
- > Interface: USB.
- > Datalogger Software: USB allows data transfer to a PC Excel format.

## Standard delivery

The equipment is supplied complete with standard spindles (4 spindles for L model, and 6 spindles for R and H models), viscometer stand and spindle protector, carrying case, USB cable and Datalogger Software.

## Technical File

- > Precision: ± 1% of full scale
- > Resolution:
  - With low viscosity adapter: 0.01
  - For lower than 10.000 viscosity cP: 0.1
  - For viscosity equal to or above 10.000 cP: 1
- > Repeatability: 0.2%
- > Thermometer features:
  - Temperature margins: 0°C to +100°C
  - 32°F to 212.0 °F
  - Resolution: 0.1°C / 0.1722 °F
  - Precision: +/- 0.1 °C
  - Type of probe: PT100
- > Supplied at 100-240 VAC, 50/60 Hz

## Spindles

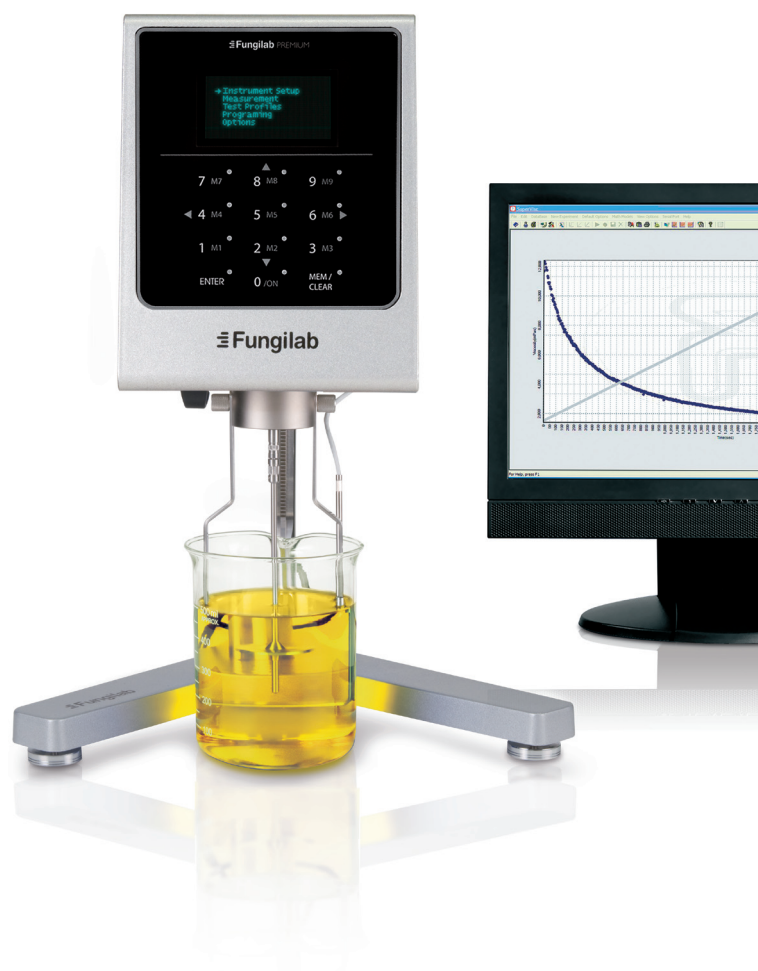
AISI 316 stainless steel spindles, easily identified by number and letter when changed according to range of viscosity.

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
V300003	EXPERT L	20 - 6.000.000	0.01 - 200	54
V300002	EXPERT R	100 - 40.000.000	0.01 - 200	54
V300001	EXPERT H	200 - 106.000.000	0.01 - 200	54



Premium series viscometers, monitored by our FUNGILAB DATA BOSS software, offer a wider and unique range of rheological applications.

## Premium Series



### Main Features

- > Touch key board 12 keys.
- > Direct readout on a graphic display.
- > Data displayed:
 

Selected speed	r.p.m.
Selected spindle	SP
Viscosity reading	cP (mPa·s) or cSt
Percentage of full scale	%
Sample temperature	°C or °F
Shear Rate (with coaxial spindles)	SR (s <sup>-1</sup> )
Shear Stress (with coaxial spindles)	SS (N/m <sup>2</sup> )
Density (introduced by the user)	g/cm <sup>3</sup>
- > Step Program Status
- > Analyze & visual characteristics (flow curves)
- > Viscosity reading: dynamic viscosity (cP or mPa·s) or kinematics viscosity (cSt).
- > Program features:
  - Time to torque: target torque pre-setting device.
  - Time to stop: target time pre-setting device.
  - Customizable Options.
  - Programmable.
  - Step.
  - Multistep.
  - Ramp.
  - 10 working memories.
- > AUTO-TEST with sound and visual malfunction alarm.
- > AUTO-RANGE function.
- > Temperature reading by PT100.
- > User-enabled viscosity and temperature calibration.
- > 10 language options.
- > Interface: USB.
- > Datalogger Software: USB allows data transfer to a PC Excel format.

### Standard delivery

The equipment is supplied complete with standard spindles (4 spindles for L model, and 6 spindles for R and H models), viscometer stand and spindle protector, carrying case, USB cable and Datalogger Software.

### Technical File

- > Precision: ± 1% of full scale
- > Resolution:
  - With low viscosity adapter: 0.01
  - For lower than 10.000 viscosity cP: 0.1
  - For viscosity equal to or above 10.000 cP: 1
- > Repeatability: 0.2%
- > Thermometer features:
  - Temperature margins: 0°C to +100°C
  - 32°F to 212.0 °F
  - Resolution: 0.1°C / 0.1722 °F
  - Precision: ± 0.1 °C
  - Type of probe: PT100
- > Supplied at 100-240 VAC, 50/60 Hz

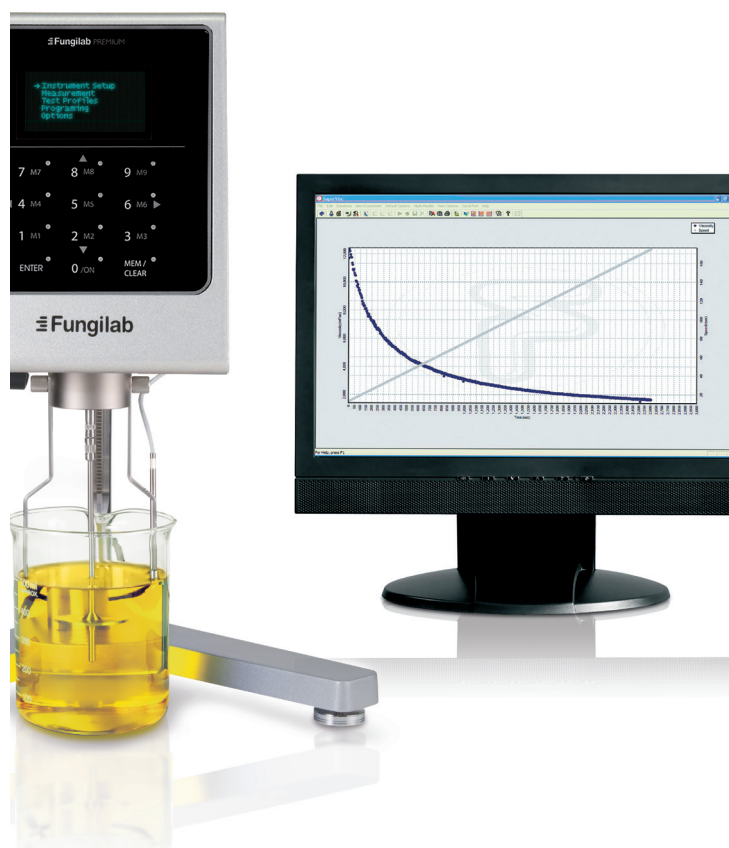
### Spindles

AISI 316 stainless steel spindles, easily identified by number and letter when changed according to range of viscosity.

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
V400003	PREMIUM L	20 - 6.000.000	0.01 - 250	2,600
V400002	PREMIUM R	100 - 40.000.000	0.01 - 250	2,600
V400001	PREMIUM H	200 - 106.000.000	0.01 - 250	2,600

# Premium series

## FUNGILAB DATA BOSS Software



### Control software

Establishing viscosity programs, documenting the procedure and the results in real time are some of the options offered by the Fungilab Data Boss software developed by FUNGILAB.

The software operates under Windows, and has been designed to be very intuitive. They only require basic tools on the user level. An options menu provides a clear view of the program. The help menu provides charts and descriptive texts that offer a clear explanation of the working options.

### FUNGILAB DATA BOSS software

The Fungilab Data Boss software developed by Fungilab, has been designed to program the PREMIUM viscometer and it is a powerful key to document and study the viscosity behaviour of fluids. As its predecessor, it has the possibility to program the viscometer for step (simple curves), ramp and multi-step curves, and it is an important tool to study the viscosity behaviour of different liquids. A powerful graph key helps the user to design the flow curves needed.

### Features

Fungilab Data Boss is a software for Windows designed to gather data from Fungilab viscosimeters.

Its features include:

- > Complete viscometer control.
- > Easy to use. All programs eliminate user errors when programming the instrument to collect data.

- > Provides instantaneous viscosity flow curves when performing new experiments, with definable parameters.
- > Fast design of experiments.
- > Export data and plot to several formats.
- > Clear view of program options using flanges.
- > Customizable graphical user interface.
- > Definable graphics and zoom function.
- > Different types of experiments can be programmed: step (simple curves), ramp and multi-step.
- > Numerical and graphical representation of gathered data.
- > Background execution of data gathers (real-time plotting of data).
- > Mathematical analysis of collected data.
- > All experiments are recorded in different databases to be able to consult them anytime.
- > In order to compare different flow curves, up to 4 experiments can be plotted simultaneously.
- > Over 12 different charts can be obtained.
- > Experiment documentation with name, number and additional data.
- > Users' privacy.
- > Log reporting.
- > Viscometer plug and play support.

This product is supplied in a CD.

The Fungilab Data Boss software complies the FDA 21CFR PART 11 regulation.



◀ USB connection for temperature probe.



◀ Usb connection for pc.



New

## Viscolead Series

Fungilab Quality  
+ Low Budget =  
Viscolead Series

### Viscolead One

Original Fungilab viscometer.  
Essential viscosity measurement.



### Viscolead Adv

Advance viscosity measurement.  
User friendly.



### Viscolead Pro

Professional and accurate viscosity results.  
Customize your measurement.



Operates with  
the newest  
Fungilab Data  
Boss

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
VL100003	VISCOLEAD ONE L	20 - 2.000.000	0.3 - 100	18
VL100002	VISCOLEAD ONE R	100 - 13.000.000	0.3 - 100	18
VL100001	VISCOLEAD ONE H	200 - 106.000.000	0.3 - 100	18

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
VL200003	VISCOLEAD ADV L	20 - 2.000.000	0.3 - 100	18
VL200002	VISCOLEAD ADV R	100 - 13.000.000	0.3 - 100	18
VL200001	VISCOLEAD ADV H	200 - 106.000.000	0.3 - 100	18

Code	Model	Measuring Range (cP)	Speed (r.p.m.)	Number of speeds
VL300003	VISCOLEAD PRO L	20 - 6.000.000	0.01 - 200	54
VL300002	VISCOLEAD PRO R	100 - 40.000.000	0.01 - 200	54
VL300001	VISCOLEAD PRO H	200 - 106.000.000	0.01 - 200	54

## Accessories for rotational viscometers



### Small Sample Adapters

The small sample adapter consists of a cylindrical sample chamber and coaxial spindles, designed for flawless, accurate viscosity measurements of small volumes. Cylindrically designed for shear measurements. (Spindles supplied separately).

#### TECHNICAL FEATURES

- > Removable, easy-to-clean stainless steel sample chamber.
- > Flow jacket sample thermostatisation between -10 and +100°C (optional).
- > Sample volume: from 8 to 13 ml, varies with spindle.
- > PT100 probe for accurate sample temperature (optional).

Viscometer type	Measuring range (cP)
L	2 - 200.000
R	38 - 3.300.000
H	300 - 26.660.000



### Low Viscosity Adapters

The low viscosity adapter is used on the rotational viscometers to perform accurate and reproducible readings on materials with viscosity as low as 1 cP (mPa·s). Cylindrically designed for shear measurements. (Supplied with spindle.)

#### TECHNICAL FEATURES

- > Easy to clean, removable stainless steel sample container.
- > Sample volume: from 16 to 18 ml.
- > Flow jacket for sample thermostatisation from -10 to +100°C (optional).
- > PT100 accurate temperature probe (optional).

Viscometer type	Measuring range (cP)
L	1 - 2.000
R	5 - 21.333



### Heldal unit for helicoidal movement

Accessory designed for viscosity measurements of non-flowing substances. In these materials the viscosity cannot be measured by standard methods and spindles due to cavitation effect around the spindle. We recommend using the HELDAL unit and T-bar spindles for comparative measurements on non-flowing substances.

A Fungilab viscometer is mounted on the Heldal unit, and it restricts measuring head to smoothly run up and down within pre-established limits, allowing constant contact between T-bar spindle and test sample thanks to the helical line described.

#### ADDITIONAL FEATURES

- > Easy to use, install and clean.
- > Supplied with motor, 6 T-shaped spindles and carrying case.
- > Compatible with all FUNGILAB rotational viscometers.

#### APPLICATIONS

- > Creams - Gels
- > Pastes - Gelatin
- > Other non-flowing substances.

Viscometer type	Measuring range (cP)
L	234 - 3.120.000
R	2.490 - 33.300.000
H	19.500 - 260.000.000



## Other Fungilab's Products



### Silicone Standard Oils

Silicone viscosity standards for rotational viscometers



### Capillary Viscometers

These FUNGILAB glass capillary viscometers allow determine viscosities using ASTM and DIN testing methods. Each viscometers comes with a calibration certificate that includes the viscometer constant and formulas to calculate viscosities.



### Fungicrom Separating Chambers

Thin Layer Chromatography (TLC) is like all chromatographic techniques, based on a multistage distribution process.



### Visco Ball

The Visco BALL viscometers measures accurately the viscosity of transparent Newtonian liquids and gases (with a special glass ball)



### Flow Cup Viscometers

STANDARDS: ISO 2431, ASTM D-1200



### Thermovisc 100 and Thermovisc 200

Digitally controlled immersion Thermostats



Products for Research, Analysis and Quality Control

**Office EUROPE**

C/Constitució 64, Pol. Ind. Les Grases, 08980 Sant Feliu de Llobregat, Barcelona  
T. +34 936 853 500 F. +34 936 853 750  
sales@fungilab.com

**Office USA**

Fungilab Inc.  
89 K Cabot Court, Hauppauge, New York 11788  
T. +1 631 750 6361 F. +1 631 750 6362  
sales@fungilab.us

**Office LATINOAMÉRICA**

Panamá, Distrito de Panamá, Corregimiento de Betania, Urb. El Dorado,  
Av. Miguel A. Brostella, C.C. Camino de Cruces, Piso 4, Local 400-1, Oficina #3  
skype. fungilab.pty  
latinoamerica@fungilab.com

**[www.fungilab.com](http://www.fungilab.com)**