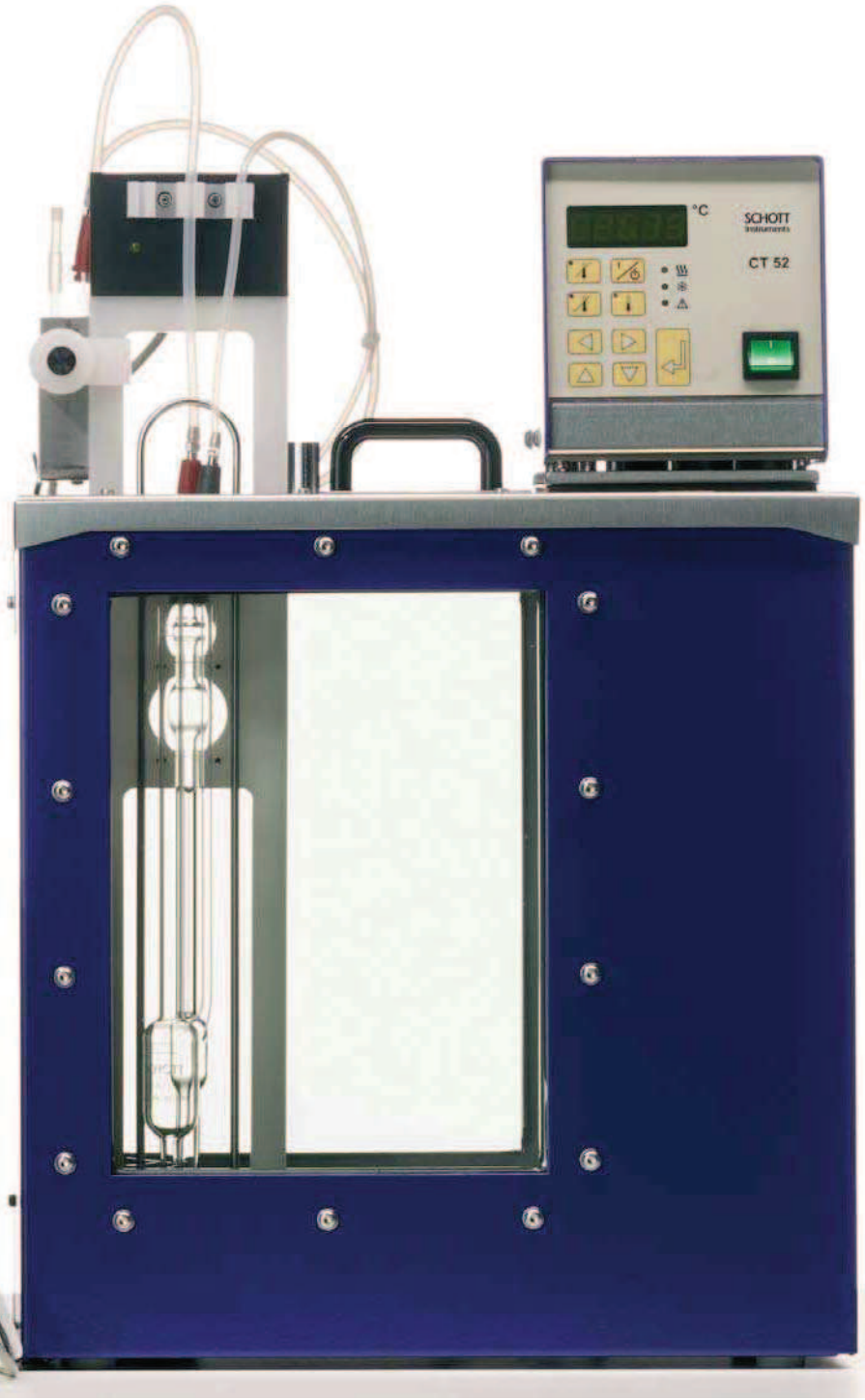
Precise Capillary Viscometry – Easy, Flexible and Independent: ViscoSystem® AVS 470

That's New: "Suction" and "Pressure" Measurements With Just One Instrument, No need for a PC

The ViscoSystem® AVS 470 is the first viscosity measuring device that allows "suction" and "pressure" measurements completely independent of a PC. This makes for maximum independence and flexibility, allowing you to set up a measuring station that meets highest requirements even under difficult conditions, e.g. to monitor production or control quality in the polymers and mineral oil industry.

Perfectly Equipped For Fully Automatic Viscosity Measurements

The ViscoSystem® AVS 470 is a measuring system that includes almost everything you need to take precise and reproducible measurements. All common types of viscosity calculation are already integrated into the device, a small PS2 keyboard is all you need to



The ViscoSystem® AVS 470 needs no PC and therefore requires just a little more space than a sheet of paper.

Keyboard and printer are available as accessories.

enter additional data. A serial printer can be used to conveniently document your measuring results.

So, in a minimum of space, you can set up a measuring station equal in every way to complex measuring installations in terms of precision and reproducibility.

Simple and updateable Modular Concept

The ViscoSystem® AVS 470 is of a modular design and an optional optical or TC version ViscoPump II module can be used to adapt your measuring station to new requirements at any time. It is possible to connect the new cleaning system AVS 270. You can use your existing accessories such as thermostats, stands, flow-through coolers or automatic cleaners e. g. AVS 26 with the ViscoSystem® AVS 470. Also, virtually all customary capillary viscometers can be used.

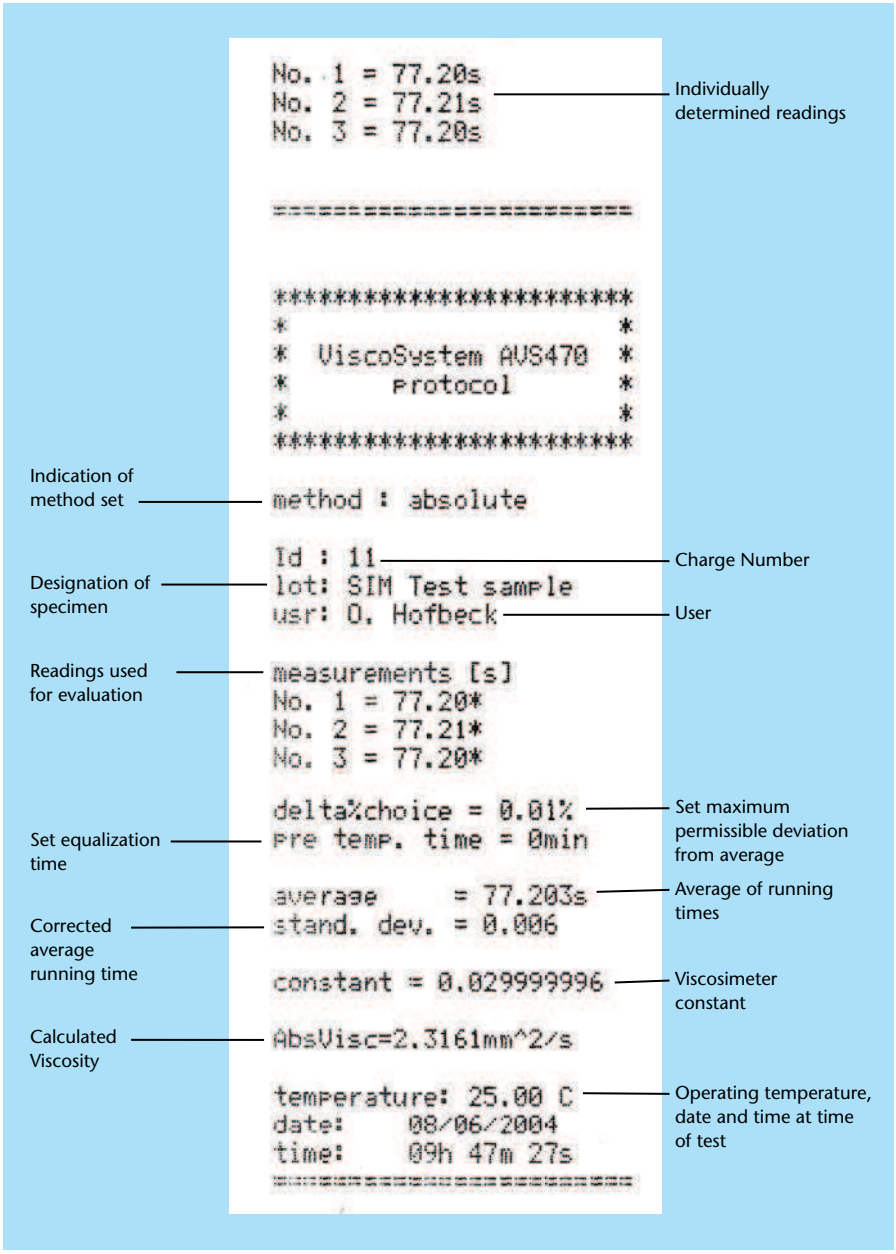
Precise and Reliable – The ViscoSystem® AVS 470

Working With the ViscoSystem® AVS 470 Is Easy

The ViscoSystem® AVS 470 is very easy to handle. The desired measuring method can be preselected and started on the device. The entire measurement is taken automatically to rule out subjective measurement errors. Once the set pre-heating time is reached, the desired number of measurements are taken and the viscometer automatically cleaned if required. The status of the measurements is continuously indicated on the LC.

If required, individual parameters may be input via a PS 2 key board (in scope of delivery). A serial printer can be used to print measurement logs.

The connections are on the front panel of the device for easy control. Overpumping and oversuction are prevented by means of a capacitive sensor (optional).



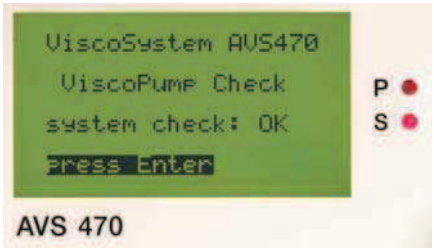
Right figure:
The print-out shows everything you need for reliable documentation of your test. Simultaneously it demonstrates the unique performance of the ViscoSystem® AVS 470.

"Suction" or "Pressure"? Preferred applications in comparison

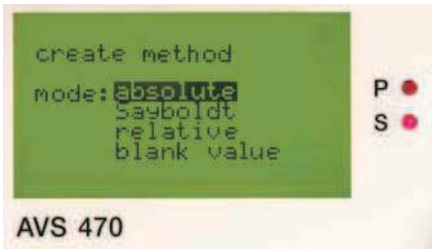
		"Pressure"	"Suction"
highly viscous samples e.g. oils, polymers		■	■
Solvents (examples):	highly volatile	■	–
	Dichloromethane	■	–
	Chloroform	■	–
	Sulfuric acid	–	■
	Dichloroacetic acid	–	■
	Toluene	■	■
	Hexafluoro-isopropanol	–	■
	m-cresol	–	■
	Formic acid	–	■
	Phenol-dichlorobenzene	–	■
	Phenol-Tetrachloroethane	–	■

Technical data

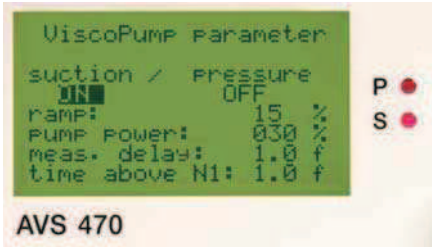
Clear user guidance, clear status – even without PC!



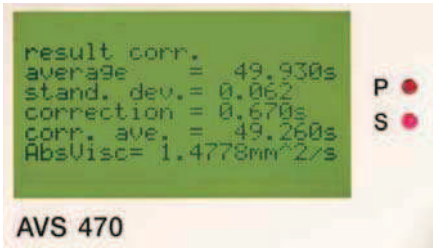
After switching on the AVS a self test is run and then an entry prompt appears.



The parameters can be set in the test mode. The t_0 value is determined automatically.



All setup parameters can be preset conveniently, e.g. pressure/suction, velocity, waiting time between two tests, etc.



The readings can be read off conveniently on the display regardless of whether or not a printer is connected.

ViscoSystem® AVS 470	
Measuring range (time)	up to 9,999.99 s; resolution 0.01 s
Measuring range (viscosity)	pressure: 0.35 … 1,800 mm^2/s (cSt)
	suction: 0.35 … approx. 5,000 mm^2/s (cSt)
Measured parameter	flow-through time [s]
Time measuring accuracy	± 0.01 %
Measured value display	LC-Display
Display accuracy	± 0.01 s, ± 1 Digit, but not exceeding 0.01%
Pumping pressure	fully automatically controlled
	suction up to approx. -160 mbar, pressure up to approx. +160 mbar
Preselectable tempering period	0 … 20 min
Preselectable no. of measurements	1 to 99 for each sample
Connections	
Pneumatic connections	threaded connections for viscometers
Electrical connections	circular connector with bayonet lock for viscometer
	4-pin DIN socket for TC viscometer
	4-pin circular connector for capacitive sensor
	7-pin circular connector for AVS 26, with bayonet lock
RS-232-C interface	9-pin for serial printer
Mains connection	connector in acc. with EN 60320
Pump connection	socket outlet in accordance with EN 60320
Ambient Conditions	
Ambient temperature	+10 … +40 °C for operation and storage
Air humidity	max. 80 % in acc. with EN 61010, Part 1
Housing	
Material	steel aluminium housing;
	with chemically resistant 2-component coating
Dimensions	(W x H x D) Approx. 255 x 205 x 320 mm
Weight (incl. pump module)	approx. 5.4 kg
Power supply	90 … 240 V ~, 50 … 60 Hz
Equipment safety	EMC in acc. with Council Directive 89/336/EWG;
	low-voltage directive

The following viscometers can be used with the ViscoSystem® AVS 470:
Ubbelohde viscometer to DIN, Ubbelohde viscometer to ASTM, micro Ubbelohde viscometer to DIN, micro Ostwald viscometer, Cannon-Fenske routine viscometer, TC Ubbelohde viscometer, TC micro Ubbelohde viscometer.

We reserve the right to make technical changes.
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