C.W. Brabender®
INSTRUMENTS, INC.

The New Viscograph-E

The principle

The Viscograph, which has been the standard instrument worldwide for measuring the viscosity of starch and products containing starch - has now got a completely new, compact design.

The Viscograph-E measures native starch – wheat, corn, potato, rice starch reliably and reproducibly, and supplies a complete profile of the rheological properties of your products.

Instrument features

- Automatic test procedure
- Storage of any number of temperature programs
- Heating/cooling rates of 0.5...3°C/min (in certain sections of the temperature cycle up to 5°C/min)
- Electronic speed control
- Low-deflection torque measurement
- Free selectable measuring ranges
- Automatic adaptation of the diagram scaling to the viscosity measured
- User-friendly measuring and evaluation software under Windows

Test Procedure

The sample is heated within a rotating bowl and cooled down again, both under controlled conditions. In conjunction with the Windows software, the integrated, self-optimizing temperature controller allows programming and storage of any temperature profiles with heating/cooling rates of 0.5…3°C/min. A measuring sensor reaching into the sample is deflected according to the viscosity of the sample in the bowl. The deflection is measured as torque.
For testing special temperature-stable starch types, a special pressure chamber will allow the evaluation of higher temperature (. 100oC)

Starch testing in compliance with ICC 169

Brabender

The software

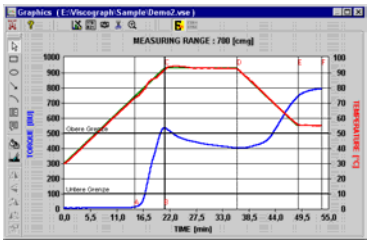
The New Viscograph-E

The user-friendly 32-bit software running under Windows evaluates all test data fully automatically and reproducibly, and allows real multi-tasking.
Enter your test parameters from your computer keyboard and store them as a "method" - a single mouse click opens your test routine at any time. The PC transmits your temperature profile to the controller and the test runs automatically. On-line displays of the Viscogram keep you or your operator informed of progress through the test. After the test, all relevant data are calculated fully automatically. Test conditions, results, and diagrams are stored in MS Access database format - an easy way to use them in other applications like word processing programs or spreadsheets.

Tests can now be run in an administrator or operator mode. Define and assign authorities in the administrator mode or create and save automatic test procedures including a description of the test procedure for your laboratory staff.

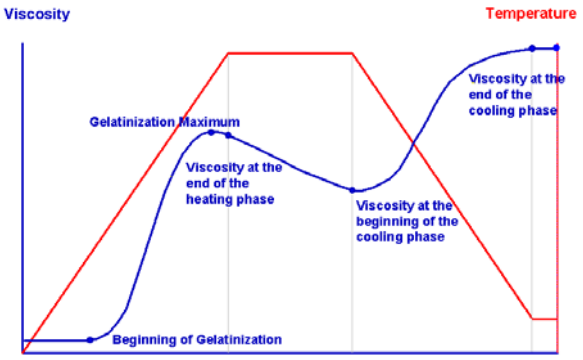
The Viscogram

Get reliable and reproducible data about the rheological properties of your material - thick or thin boiling, different thickening capacities, gelification, high or low hot and cold viscosity, stability, etc.



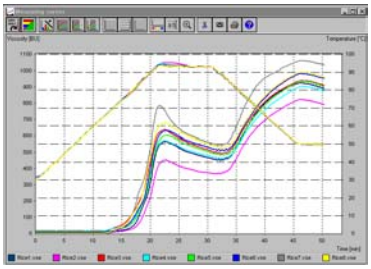
The following points are evaluated:

- **Beginning of gelatinization**
- **Gelatinization maximum**
- **Gelatinization temperature**
- **Viscosity during holding**
- **Viscosity at the end of cooling**



Data correlation

The data correlation program allows a direct comparison of up to 10 Viscograms by contrasting test conditions and results in a tabular form and evaluating them statistically.



Universal evaluation

Use this new, additional software package for defining evaluations of your own. Multiple defined formulas help you to

- Evaluate e.g. the maximum or minimum within a certain, defined time range
- Search for the first time when a predefined viscosity is reached in the test
- Evaluate in defined temperature, time, or viscosity steps
- Evaluate e.g. the time between a certain temperature and reaching a certain viscosity, etc.

Technical data	
Sample volume	approx. 450 ml
Heating capacity	550 W
Heating/cooling rate	0.5...5°C/min*)
Speed	0...150 min^{-1}
Torque measurement	electronically
PC port	USB
Mains connection	115/230 V, 50/60 Hz
Dimensions [mm] (H * W * D)	900 * 550 * 400
Weight	approx. 33 kg

*) for special applications in certain sections of the temperature cycle up to 5°C/min

Subject to change without notice

Zertifiziert nach DIN EN ISO 9001:2000

C.W. Brabender® INSTRUMENTS, INC.

C.W. Brabender® Instruments, Inc. • 50 East Wesley Street • South Hackensack, NJ • 07606
Phone: 201.343.8425 • Fax: 201.343.0608
E-Mail: foodsales@cwbrabender.com • Internet: www.cwbrabender.com

102005
15045 E