

Flour & Dough Testing

doughLAB



Benefits:

- Performs Conventional Test
- Programmable Mixing Speed
- Programmable Temperature
- Emulate Flour Blending

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doughLAB™ is a flexible dough rheometer with variable temperature and variable energy input to emulate commercial mixing, research the response of a dough to changing stress, and perform international standard methods for dough rheology using conventional z-arm mixing action. The system comes complete with menu driven software. Determine water absorption, dough mixing profile, development time, stability and softening of wheat, rye and durum doughs for milling, baking, and foods laboratories using the conventional test configuration. Easily created customised test routines for user specific needs including high energy mixing to emulate commercial mixing processes and variable speed mixing to research dough response to changing stress.

Features and Benefits

Flexible: Conventional method included in software. Create your own customised methods.

Traceable: Calibrated in standard and traceable torque units (Nm). Complies with ISO9000 and Quality System requirements.

Integrated: On-board water dispensing with “drip” function, temperature control and computing.

Automated: Operation and data analysis routines stored in software.

Choice of Bowls: Compatible with 50g and 300g mixing bowls.

Choice of Temperature Measurement: In-bowl, internal or in-dough temperature monitoring.

Programmable Speed Mixing: Perform fast tests, increase sample throughput, research dough response to changing stress, incorporate ingredients, study stiff doughs and novel dough formulations and use high energy mixing to emulate commercial mixing processes.

Programmable Temperature: Measure the heating and gelling characteristics of dough.

Software: Optional doughMAP software creates a blended reference file.

Applications

Dough Mixing Profile: Development time, stability, softening and other parameters using established standard methodology.

Water Absorption: Dough water absorption using established standard methodology.

Composite Flours: Use flexible mixing speed and temperature to study properties of composite flours.

Functionality: Gluten and carbohydrate functionality.

Enzyme Activity: Enzyme activities in flour.

Ingredients: Function and effects of dough ingredients.

Treatments: Effects of flour treatments.

Emulate Commercial Mixers: High energy mixing emulates commercial processes.

Specifications

Power Requirements: 230 VAC, 6.5A, 50/60 Hz.

Dimensions (H x W x D), Net Weight: 370 x 490 x 970 mm, 91 kg incl 300 gram bowl.

Temperature Range: Standard 10–80 °C.

Coolant Consumption: Water 20 °C, 1 l/min at cooling, 210 kPa. Chilled coolant required for cooling below room temperature.

Temperature Monitoring: Sample, bowl and water.

Speed Range: 0, 10–200 rpm.

Motor Torque: up to 40 Nm.

Water Dispensing Range: 1–300 mL.