

Brabender 3-Phase System

Flour and Dough Analyzers

Achieve baking perfection
through full-process,
standard-compliant flour
testing.



Find out more



Phase 1

Brabender FarinoGraph

Predict water absorption and dough strength

Determines kneading properties of the dough, as well as rheological behavior, to ensure stable, reproducible dough performance – the foundation for reliable, high-quality baking.



Phase 2

Brabender ExtensoGraph

Reveal dough behavior before baking

Measures dough resistance and extensibility after set resting times to simulate fermentation and shaping. Offers indications about baking performance (bread volume). Enables accurate assessment of gluten strength, gas retention, and additive effects.



Phase 3

Brabender Amylograph-E

Control gelatinization and enzyme activity

Monitors starch gelatinization and α -amylase activity under real baking conditions to prevent sticky crumb, poor volume, and uneven browning.

Perfect bread starts with perfect flour

The Brabender 3-Phase System lets you predict baking performance and ensure consistency before dough even reaches the oven. It simulates real bakery conditions to reveal how flour behaves during mixing, fermentation, and baking. Combining the Brabender FarinoGraph, Brabender ExtensoGraph, and Brabender Amylograph-E, this fully standardized system delivers the complete picture of flour performance – from water absorption to dough-stretching properties and enzyme activity.

Key benefits

- Consistent control across all production steps for high-quality bakery and pasta products
- Realistic simulation of bakery conditions
- Standard-compliant, globally comparable results
- Universal reference in Brabender Units
- Cost reduction in raw material procurement and overall production

Complete control from flour to final product

True control means understanding every phase of dough development. The 3-Phase System unites mixing, stretching, and heating analysis for a full view of flour quality. The result: optimized recipes, traceable processes, and superior, repeatable outcomes.

One software for all data – MetaBridge

The Brabender MetaBridge software connects all three instruments in one digital workflow. View, compare, and analyze results in real time from any device – ensuring standardized, traceable quality control from flour intake to final product release.

Cover all relevant flour and dough standards for trusted product quality:

- ICC 114/1, 115/1, and 126/1
- AACCI 22-10.01, 54-10.01, and 54-21.02
- ISO 5530-1, 5530-2, and 7973
- ...and others