

Rheo F4

DOUGH PROOFING ANALYZER



Understand Dough Behavior During Proofing

Proofing is a critical baking stage that influences shaping, flavor, volume and crumb characteristics. During fermentation, yeast consumes sugars, producing carbon dioxide to leaven the dough. This process depends on flour quality, yeast characteristics, and other ingredients. The final product volume relies on gas production and gas retention: both must be controlled to reach the “expected volume” or “a correct volume”.

UNIQUE ASSESMENT OF GAS PRODUCTION AND REDUCTION DYNAMICS

The Rheo F4 is a one-of-a-kind instrument, uniquely capable of assessing both gas production and retention dynamics in a single test. This comprehensive analysis not only offers a complete measurement of dough development but also provides a profound understanding of how the combined influence of gas production and gas retention affects dough development and stability during proofing. These insights empower bakers to optimize recipes, adjust fermentation durations, and enhance baked goods.

CUSTOMIZED TESTING PROTOCOL

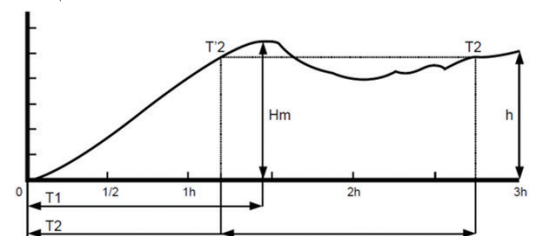
The testing protocol can be tailored to a wide spectrum of leavened dough: simple flour and yeast-based doughs, to more complex ones with additives or ingredients. It accommodates various scenarios:

- Temperature, time, and weight adjustments
- Assessment of yeast quality and freshness for all types of yeast (dry, fresh, cream)
- Gluten-free dough
- Short and long proofing simulations
- Yeast reactivation post-freezing
- Characterization of dough from production lines, including rich formulations
- And more

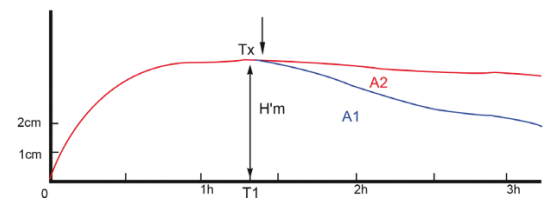


RHEO F4 FEATURES

- Automated testing for all types of yeast dough
- Measures gas production and gas retention and the resulting dough development in a single test
- Flexibility for customized testing protocols
- Automated testing and real-time monitoring via PC software
- Space-efficient design
- Low maintenance, single consumable (soda lime)
- Compliance with AACC 89-01.01 Yeasts Methods



Dough Development Curve



Gas Production Curve



AUTOMATED TESTING AND REDUCED OPERATOR TIME

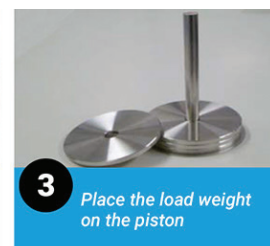
The test setup is easy: simply place the dough into the proofing bowl, and the system conducts the full analysis automatically. The Rheo F4 is monitored during the testing via PC Software. Data from several samples can be compared to determine product conformity and precisely evaluate the effect of an ingredient on the dough.



1 Check that the soda lime cartridge is not saturated



2 Prepare the dough then place it at the bottom of the basket



3 Place the load weight on the piston

SIMPLE AND LOW MAINTENANCE

The Rheo F4 is designed for user-friendliness and easy installation. Its lightweight, compact design seamlessly integrates into your laboratory setup. The device has minimal maintenance requirements and relies on a single consumable – soda lime.



4 Place the piston and the weights on the dough



5 Place the development sensor and hermetically close the assembly



6 Configure the test and just press start!

ORDERING INFORMATION

The Rheo F4 comes complete with a proofing bowl, a dough development sensor with its cable, a piston, four 500g weights, bowl tightening nuts, a laboratory bulb (for leak testing), a temperature control support, a pump, and a cartridge (to feed with soda-lime - not included).

MODEL AVAILABLE

Part Number	Description
RHEOF4	Dough proofing analyzer

ACCESSORIES

Part Number	Description
FARINE-RHEO	Flour Ref. sample for performance checking
RF4-1001	Rheo F4 spare part kit



Flour Reference

SPECIFICATIONS

Size	415 x 265 x 545 mm (16.3 x 10.4 x 21.5 in.)
Weight	12 kg (26.5 lbs)
Power	220/240 VAC, 50/60 Hz, 150 Watts
Fuse	5x20 T 1.6A 250 V
Consumable (Not Included)	Soda Lime
Software Languages	Chinese, English, French, German, Italian, Polish, Portuguese, Russian, Spanish
Regulatory Compliances	AACC 89-01.01
Protocol adjustments	- Temperature adjustable within the range from room temperature to 50°C - Time freely customizable

KPM Analytics

36 Avenue Marc Sangnier | B3 | 92390 Villeneuve-la-Garenne France

Phone: +33 1 41 47 50 48

www.kpmanalytics.com | sales@kpmanalytics.com

© Copyright 2024. All rights reserved. 03.005.0411.EN.v2.1

