

Production of Flour for Breadmaking Tests and other Analyses

The Labmill is a pilot production mill that transforms wheat (hard or soft) into refined flours (also called purified/white flours). It automatically separates the floury wheat kernel (or endosperm) from the wheat skin.

FLOUR REPRESENTATIVE OF THE INDUSTRIAL MILL

The Labmill simulates the operation of an industrial mill on a reduced scale. It achieves high extraction rates (typically between 65% and 75%) to produce a flour that is highly representative of those from an industrial mill.

The Labmill recovers the proteins and enzymes from the most peripheral layers of the grain, such as the aleurone layer. This precision makes Labmill the ideal tool for producing flours intended for more comprehensive tests, such as bread-making or the evaluation of the addition of exogenous enzymes, etc in which the enzymatic component plays a major role.

WHEAT MILLING PERFORMANCE AND BEHAVIOR OF GRAINS DURING MILLING

Labmill users have access to all milling products including flour stream, fine middlings, coarse middlings, and bran. The quantitative and qualitative distribution of the different fractions provide valuable information about the future milling behavior (or milling value) of the wheat at the industrial mill. This milling value information allows millers to select the wheat most adapted to their needs, not only in terms of flour quality produced, but also in terms of adaptability to their milling process.

APPLICATIONS

Millers, wheat breeders, ingredients specialists, control labs, and other baking industry professionals: Labmill is used for various baking analyses, including testing when enzymatic component plays a significant role in qualifying its technological aptitude (example: bread making) or evaluating the effects of enzymes and other bread-making improvers.

Universities and schools: Labmill is an excellent educational tool for training future millers.



LABMILL FEATURES

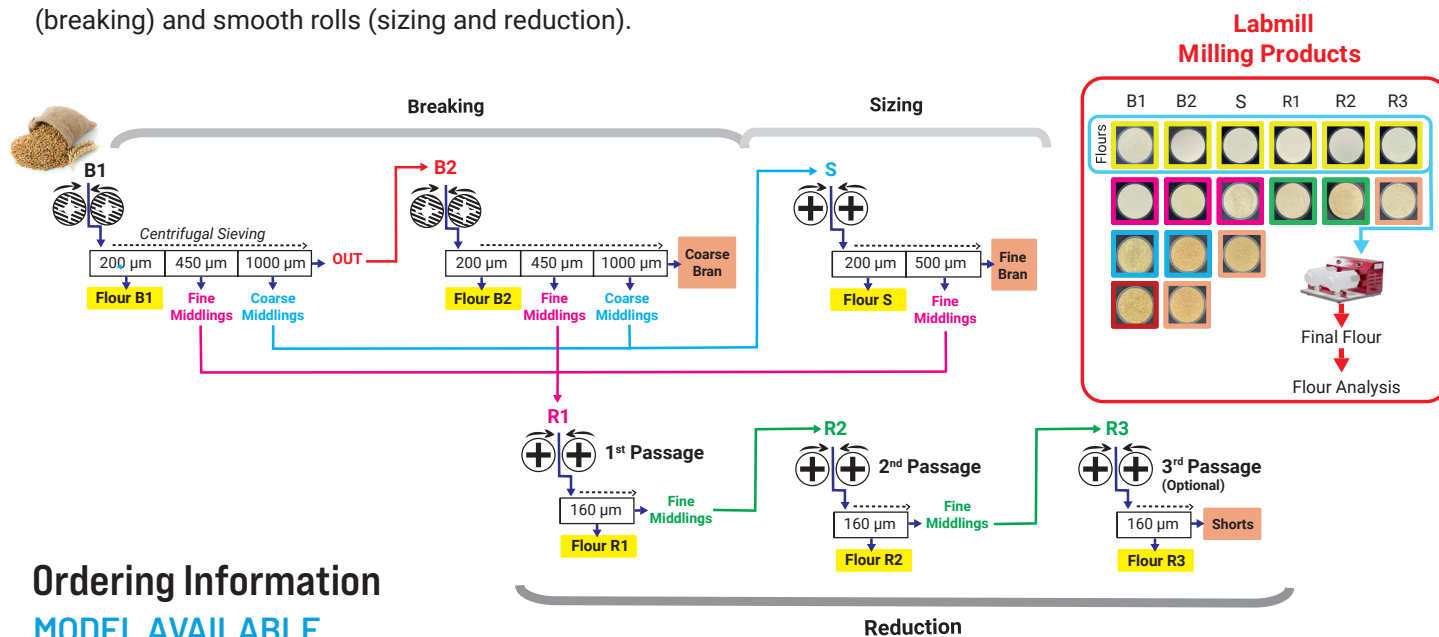
- A patented milling procedure: two breaking stages, one sizing stage, and three reduction stages
- Adaptable long milling diagram with the ability to delete or double certain passages
- Run two milling samples simultaneously breaking and sizing/reduction parts operate separately
- Additional adjustment capabilities (feed rate, sieving efficiency, roller spacing*, etc.)
- Extraction rate 65 to 75 %
- Capacity of up to 3 kg (6.6 lbs) of wheat
- Robust design, and low maintenance

** The adjustment of the roll gap requires specific mechanical knowledge and prior training by KPM Analytics*



A PATENTED LONG MILLING DIAGRAM

The Labmill refines grain size through a sequence of processes: passing the material between rolls for reduction, sieving to separate particles by size, and directing them to additional rollers as needed. The process includes a long milling diagram with two breaking stages, one sizing stage, and three reduction stages, which combines corrugated rolls (breaking) and smooth rolls (sizing and reduction).



Ordering Information

MODEL AVAILABLE

Part Number	Description
LABMILL	Laboratory mill - delivered assembled and equipped. It includes a set of Allen keys, a reference weight of 100 g, a key to lock/unlock the flour reel compartments and a USB drive containing instructions for use and other files.

ACCESSORIES

Part Number	Description
MIL-1008	Labmill spare part kit
EM10	Moisture oven for reference measurement
MR2L	Mixer for tempering and homogenizing grains and powders products

SPECIFICATIONS

Size	1200 mm L x 900 mm W x 1500 mm H (47.2 in L x 35.4 in W x 59.1 in H)	
Weight	200 kg (440 lbs)	
Power	220/240 VAC 50 or 60 Hz	
Milling diagram	2 breaking part (grooved cylinders), 1 sizing part (smooth cylinders) 3 reduction part (smooth cylinders), each associated with a centrifugal sieve	
Milling Capacity	Up to 3 kg (6.6 lbs)	
Flour Quality*	Extraction rate: 65 to 75%	Ash content: 0.50 – 0.65%
Milling Time*	Test time: 40 minutes for 1 kg (2.2 lbs)	
Environmental considerations	Indoor use / Operating temperature: 10°C to 45°C (50°F to 113°F)	

* Indicative values (variable according to the wheat, the conditioning, the applied milling procedure, etc.)

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