Farinograph

Method

1. A flour sample of 50 or 300 grams on a 14 percent moisture basis is weighed and placed into the corresponding farinograph mixing bowl.
2. Water from a buret is added to the flour and mixed to form a dough.
3. As the dough is mixed, the farinograph records a curve on graph paper.
4. The amount of water added (absorption) affects the position of the curve on the graph paper. Less water increases dough consistency and moves the curve upward.
5. The curve is centered on the 500-Brabender unit (BU) line ±20 BU by adding the appropriate amount of water and is run until the curve leaves the 500-BU line.

Results

- The farinograph determines dough and gluten properties of a flour sample by measuring the resistance of a dough against the mixing action of paddles (blades).
- Farinograph results include absorption, arrival time, stability time, peak time, departure time, and mixing tolerance index.
- Farinograph curves are described on pages 30 to 31.

Why is this important?

The farinograph test is one of the most commonly used flour quality tests in the world. The results are used as parameters in formulation to estimate the amount of water required to make a dough, to evaluate the effects of ingredients on mixing properties, to evaluate flour blending requirements, and to check flour uniformity. The results are also used to predict processing effects, including mixing requirements for dough development, tolerance to over-mixing, and dough consistency during production. Farinograph results are also useful for predicting finished product texture characteristics. For example, strong dough mixing properties are related to firm product texture.

Farinograph mixer and apparatus.

- **Recording dough mixer**
- **Measures flour water absorption and dough strength**