Farinograph®-AT
New technology, optimized reproducibility
and integrated water dosage

… where quality is measured.
State-of-the-art measuring system

\[ \text{Farinograph®-AT} \]

**Application**

The instrument consists of a drive unit with continuous speed control and an attached measuring mixer for mixing the dough to be tested. Reliable and reproducible determination of the flour quality and its processing characteristics is a basic demand in the milling and baking industries for ensuring optimum and uniform flour qualities for the manifold baking and noodle products.

**Advantages**

- Automatic water dosing system
- Extended software applications
- Variable speed (0 - 200 min⁻¹)
- Higher Torque 20 Nm
- Colored display shows temperatures
- Recording of two temperatures (dosing water and dough)
- Calculates mixing energy
- Patented

**Additional software**

- Programming of speed profiles
- Creating of individual test profiles
- Free definition of own evaluation methods
- Integrated videos show test procedures
- Auto save mode
- Reference curve could be integrated

**Manifold applications**

- Measure the water absorption of flours
- Determine the rheological properties of the dough
- Check production and flour blends in the mill
- Test rye flour, biscuit batters, egg foam, etc.
- Special applications, e.g. for chocolate, chewing gum, fish, cheese, meat etc.

**Principle**

Fill your flour sample into the preheated and temperature controlled measuring mixer. Start the program. The mixer blades loosen up the flour and a minute later the water will be injected into the mixer. A dough develops, which is subjected to a defined mechanical stress by the rotating mixer blades which are driven by a motor, carried in a pendulum bearing.

The resistance of the dough against the blades, which depends on the viscosity of the dough, causes an opposite deflection of the motor housing. This deflection is measured as torque and recorded and plotted on-line as a function of time in a clear color diagram.

**The Farinogram**

Get reliable and reproducible data about the quality characteristics of your flour from the Farinogram which shows

- Water absorption
- Development time
- Stability
- Degree of softening
- Farinograph® quality number

**Details of the automatic water dosing system**

- Water tank (2 l) simple to remove
- Temperature control of added water
- Low maintenance cost

**AT-Display with temperature**
Mixing tools for the Farinograph®-AT

Sigma mixer S 300
- For standard Farinograph® test (300 g of flour) according to ICC, AACC, ISO
- For mixing the dough for Extensograph® tests
- Removable blades

Sigma mixer S 50
- For standard Farinograph® test (50 g of flour) according to ICC, AACC, ISO
- Removable blades

Sigma mixer S 10
- For standard Farinograph® test with small sample weights (10 g)
- For breeders and research work

Planetary mixer P 600
- For rye dough and sponge batter
- With dough hook, K-hook, whisk

Resistograph mixer R 100
- Flat blades
- Narrow bowl
- Intensive mixing
- High shearing force

Further special mixers on request

Planetary mixer closed
Planetary mixer lowered
Planetary mixer open

Hardness and Structure Tester
- For testing the hardness of grain (wheat, barley, malt, etc.)
- Special software

... where quality is measured.
**Farinograph®-AT**

### Individual test procedure

Apart from the standard evaluation, the software allows to adapt the test procedure to your individual requirements:
- Reduced test time and/or increased mixing intensity by variable speed (0 - 200 min⁻¹)
- Variable mixing intensity and energy input to the dough for research and development applications
- Additional software for programming complex speed profiles, e.g. premixing at a low speed and measurement at an increased speed or definition of rest times for long dough systems
- Evaluation of diagrams which differ from the typical Farinogram profile

### Data correlation

Use the powerful Farinograph® correlation program to compare diagrams and results of up to 10 tests with each other. Test conditions and results are contrasted in tables and evaluated statistically.

Quick assess trends or irregularities by drawing and printing all diagrams of the correlation together in a single plot.

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**Farinograph®-AT**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Motor power</strong></td>
<td>0.45 kW</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>0 - 200 min⁻¹</td>
</tr>
<tr>
<td><strong>PC port</strong></td>
<td>USB</td>
</tr>
</tbody>
</table>
| **Mains connection** | 1x 230 V; 50/60 Hz + N + PE; 3,2 A  
                        115 V; 50/60 Hz + PE; 6,5 A |
| **Dimensions**     | (W x H x D) 470 x 450 x 880 mm |
| **Weight**         | approx. 75 kg net      
                        approx. 95 kg net including 300 g mixer |