Farinograph®-TS
User-friendly flour quality testing standardized worldwide

ICC-Standard No. 115/1
AACC Method No. 54-21.02
AACC Method No. 38-20.01
ISO 5530-1

… where quality is measured.
**Farinograph-TS**

**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.

**The Farinogram**
The Farinogram shows the quality characteristics of the analyzed flour.

**Water absorption:**
The more water a flour can absorb at a definite consistency of a dough, the greater the dough yield per sack of flour.
- Higher flour price due to optimal water absorption
- Time saving in production due to constant water absorption

**Dough development time:**
Optimum mixing time for optimum doughs.
- Most efficient mixing time and settings
- Assurance of stable product quality by identifying different particle sizes or starch damage

**Stability:**
The longer the stability, the greater the fermentation tolerance and the higher the forces required for mixing.
- Determination of the most profitable application with information on the properties of the gluten contained in the dough

**Degree of softening:**
The sooner the weakening, the shorter the fermentation and the less the abuse the flour can withstand.

**Farinograph Quality Number (FQZ):**
The higher the FQZ, the stronger the flour.

**Advantages of the Farinograph-TS**
- Compact housing with low space requirements
- Plug & Play: ready to use
- Modular design, touch screen optionally available
- New MetaBridge software features as the new user interface
- Multi access: Tracking of tests through multiple end devices at a time

**Individual test procedures**
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 kneading at an increased speed or definition of rest times for long dough systems
- Evaluation of diagrams which differ from the typical Farinogram profile
Configuration possibilities for the Farinograph-TS

Configure your ideal Farino from the basic version to the comfort version

- Screen configuration
- Water dosing system configuration

**Screen configuration**
- Farinograph-TS without touch screen
- Farinograph-TS with touch screen

**Water dosing system configuration**
- Farinograph-TS with burette
- Farinograph-TS with Aqua-Inject

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The Brabender MetaBridge

**Discover the Brabender MetaBridge**
The new software is characterized by its easy and intuitive handling. After log-in, the user finds all information about the device and a choice of options for his purpose on the start screen.

**Measurement, evaluation and administration functions**
Benefit from new and optimized functions:
- Administration mode for user access rights
- Central test administration
- Live tracking of tests with end time indication
- Record, evaluate, print and export test results
- Interactive editing of measuring data
- Automatic measuring data storage mode

**Advantages**
- User-friendly operation by touch
- Test tracking independently from end device and location
- Responsive web design: automatically adjusted screen resolution
- Ready to use, no installation necessary
- Access through easy user log-in
- Touch support for tablets and smartphones
- Test tracking from multiple end devices at a time
- Security of tests and data: protection from unauthorized access
- Automatic note when new software updates are available, provided the instrument has internet access

**Working without glass burette**
The Aqua-Inject is an add-on instrument for use with several Brabender Farinograph models (with USB port) in combination with the MetaBridge Controller. It can be used for the Measuring Mixer S 300.

**Advantages**
- Automatic creation of a titration curve
- Electronically controlled, constant water temperature of 5 °C to 50 °C (± 0.2 °C)
- Precise temperature control of the dosing water without additional thermostat*
- High accuracy and reproducibility (better than 0.1 %)
- Automatic dosage of the water quantity (0.3 - 2000 ml)
- Elimination of the glass burette
- Easy servicing and cleaning

*applying at temperatures lower than room temperature an external thermostat is needed

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... where quality is measured.
Farinograph-TS

Calibration Kit

Check measurements with reference material
Avoid complaints, unnecessary rejects and loss of reputation. Frequent check measurements with Brabender reference material ensure reliable measuring data. Our specially prepared calibration flour in combination with the reference curve offers you a direct comparison of your measuring data with the nominal measurement values.

Order your Calibration Kit by phone or e-mail:
Tel.: +49 203 7788-131
service@brabender.com

Application
Prepare the test according to the instructions and compare the values with the provided reference curve of the master device. If the values are within the tolerance limit, you can rely on the values of your device as well as on your application. If the values exceed the tolerance limit despite numerous checks, together we will identify the cause and find a solution for it.

Part of the 3-Phase-System
The Brabender 3-Phase-System simulates the production of bakery products on a laboratory scale – integrated and practice-oriented:

- Phase 1 – Farinograph gives information about the flour water absorption and the mixing characteristics of dough
- Phase 2 – Extensograph determines the stretching properties of dough
- Phase 3 – Amylograph measures the gelatization properties of starch and the enzyme activity in flour

Advantages
- Practice-oriented methods to characterize your flour
- Methods standardized worldwide
- Cost optimization for raw material supply and production
- Quality control for high quality products

Farinograph-TS

<table>
<thead>
<tr>
<th>Max. Torque</th>
<th>20 Nm</th>
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<tbody>
<tr>
<td>Speed / Speed profiles</td>
<td>0 - 200 min⁻¹</td>
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</table>
| Mains connection | 1 x 230 V; 50/60 Hz + N + PE; 5,2 A
1 x 115 V; 50/60 Hz + PE; 10,4 A |
| Interfaces | 1x ethernet connection; WiFi
1x HDMI connection
4x USB connections |
| Dimensions (W x H x D) | 420 x 553 x 700 mm (without touch screen)
470 x 553 x 700 mm (with touch screen) |
| Weight | approx. 45 kg net
approx. 63 kg net including Mixer S 300 |
| Aqua-Inject | approx. 12 kg net |

Farinogram
Extensogram
Amylogram

Mixing tool for the Farinograph-TS:

Measuring 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

The new Measuring Mixer S 300: Slim design and low overall weight for enhanced usability

Further Methods
- AACC method No. 54-22.01
- AACC method No. 54-28.02
- AACC method No. 54-29.01

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