

Brabender®

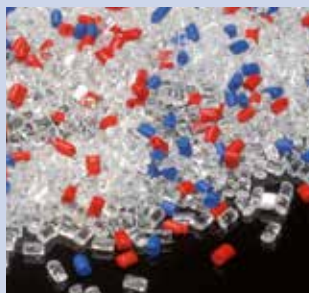


Brabender® Plasti-Corder® Lab-Station Brabender® Plastograph® EC Torque Rheometers / Drive Units



... where quality is measured.

Plasti-Corder Lab-Station / Plastograph EC



Fields of application

- Raw material and recipe development
- Material testing
- Quality control parallel to production
- Optimization of the production process
- Laboratory-scale production of samples for further investigations



Brabender application laboratory

The Brabender support

Our state of the art application laboratory is always made available to our customers.

You can choose to send material to us for testing or schedule a specific Lab Trial with our expert team. In our application laboratory, you will have access to our full product line to help come to a solution for your application.

Why go modular?

In laboratory applications, flexibility and versatility are paramount.

Users no longer need to have numerous stand-alone machines with many different controls. With just one drive unit, you can use manifold Brabender processing units:

- Measuring mixers
- Single screw measuring extruders
- Twin screw measuring extruders (compounders)

Using modular systems means a cost-effective solution to work flexibly with numerous laboratory machines.

The core element of the versatile modular Brabender system are the drive units or torque rheometers.

Principle - the role of the drive units

The Brabender drive units

- provide the motion by the drive motor for the processing modules
- contain the direct torque measurement system
- control and/or read the parameters of the processing modules, feeders and follow-up units, like melt and zone temperatures, speed, pressure etc.



Plasti-Corder Lab-Station with twin screw extruder TSE 20/40

Advantages

- Modular configuration
- Multi-master system with self-intelligent modules
- Self-validation
- Real-time transmission of events and actual values
- Control and evaluation software for all current Windows® versions and for the new web-based Brabender MetaBridge (see rear page)
- Real multitasking
- Easy connection of additional equipment such as mixers and extruders
- Automatic recognition of additional equipment



Plasti-Corder Lab-Station with measuring extruder 19/25



Plastograph EC Plus with measuring extruder 19/25


Plasti-Corder Lab-Station / Lab-Station EC		
Power*	16 kW	6.8 kW
Measuring range	400 Nm	300 Nm
Torque deviation	± 0.15 %	
Speed range	0.2 - 350 min ⁻¹	0.2 - 200 min ⁻¹
Speed deviation	0.2 % through digital feedback	
Temperature control	at the docking station (max. 8 zones)	
Mains	Lab-Station: 3 x 400 V, 50/60 Hz + N + PE, 63 A Lab-Station EC: 3 x 400 V, 50/60 Hz + N + PE, 32 A / 3 x 200 V, 50/60 Hz + PE, 32 A	
Dimensions (W x H x D)	630 mm x 1300 mm x 1170 mm	
Weight	340 kg	302 kg

Plastograph EC / Plastograph EC Plus	
Power*	3.8 kW
Measuring range	200 Nm
Torque deviation	± 0.15 %
Speed range	0.2 - 150 min ⁻¹
Speed deviation	0.2 % through digital feedback
Temperature control	Plastograph EC: 3 zones Plastograph EC Plus: 6 zones
Mains	3 x 400 V, 50/60 Hz + N + PE, 32 A optional: 3 x 200 V, 50/60 Hz + PE, 32 A without transformer
Dimensions (W x H x D)	650 mm x 480 mm x 1150 mm
Weight	154 kg

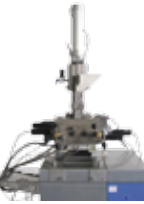
*Upon request – considering the power – other torque-speed range pairings are also available.

Tailor-made system configurations for different applications:


Plasti-Corder Lab-Station



Single screw extruder 30




Mixer 350




Twin screw extruder TSE 25


Plasti-Corder Lab-Station EC




Measuring mixer 30/50




Twin screw extruder TSE 20/40




Conical twin screw extruder




Planetary mixer P 600



Single screw extruder 19



Twin screw compounder TSC 42/6



Plasti-Corder Lab-Station / EC


For applications which require higher torque and speed, we recommend this floor-standing model, where the modules are attached on their docking station.

The Lab-Station model with its 16 kW drive power which provides 400 Nm torque and 350 min⁻¹ speed can handle all the processing modules of the Brabender modular system.

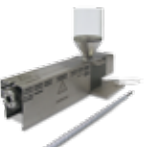
The Lab-Station EC variant is a more economical version with 6.8 kW drive power.

The compatibility of the different processing modules and Plasti-Corder Lab-Station drive units can be seen in the schematic on the left.

Plastograph EC Plus




Conical twin screw extruder




Single screw extruder 19


Plastograph EC



Measuring mixer 30/50



Planetary mixer P 600



Plastograph EC / EC Plus

The Brabender Plastograph EC drive units are the economical table-top version of the universal Plasti-Corder Lab-Station models for applications with lower demands as to torque and speed levels.

Both models are equipped with a 3.8 kW drive motor, which provides 200 Nm torque and maximum 150 min⁻¹ speed.

The Plastograph EC Plus design has an increased number of heat control and pressure read channels so that it can handle the conical twin screw and the 19 mm single screw extruders.

The compatibility of the different processing modules and Plastograph EC drive units can be seen in the schematic on the left.

Plasti-Corder Lab-Station / Plastograph EC

CAN bus system - just plug and play

The integrated CAN bus system of Plasti-Corder Lab-Station and Plastograph EC allows permanent communication and easy wiring between the modules and components, furthermore an unlimited number of auxiliaries can be attached – just plug and play.

The construction allows the self-validation of the complete system, automatical detection of defective elements and torque protection both mechanically and electronically.

All of the drive units are equipped with an integrated control panel for

- speed and temperature setting
- stock temperature and pressure indication
- digital and diagram value indication

The Plasti-Corder Lab-Station and Plastograph EC can be operated via PC with our software through PCI-CAN board or USB converter or, using the new, web based Brabender MetaBridge, from any location and end device.



Control panel for parameter setting and display of the measured values

The Brabender MetaBridge



Brabender MetaBridge software running on tablet

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.

The advantages

- User-friendly operation by touch – perfect for tablets and smartphones
- Responsive web design: screen resolution adjusted automatically
- Ready to use, no installation necessary
- Security of tests and data through easy, password protected user log-in
- Live test tracking by authorized users from multiple end devices all over the world at a time

Intelligent features

Benefit from new and optimized functions:

- Administration mode for user access rights
- Webbased solution – possibility of sharing information and data with other users worldwide
- Live tracking of tests with end time indication for logged-in users
- Optimized basic functions like data recording and evaluation, printing and export of test results – clearer, easier, faster
- Central test administration and data storage provides for quick and easy access of authorized users
- Easy definition, clear display and quick integration of reference curves
- Optimized functions for editing and adapting diagrams to your individual needs



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