



**C.W. Brabender®**  
INSTRUMENTS, INC.

## Realistic Production Simulation On a Laboratory Scale

C.W. Brabender® Instruments, Inc. Laboratory Extruders are built to meet rigid manufacturing standards.

They must provide close test reproducibility in order to act as measuring heads to the Plasti-Corder® torque rheometer, a precision instrument.

Their output depends on testing variables such as: **feeding -- melt temperature -- pressure -- extrusion material -- screw and die design -- rpm...**

Sixteen standard models include L/D ratios of 10:1, 15:1, 20:1, 25:1, and 30:1. Different models provide alternate methods of heating and cooling.

Temperature regulation on each is performed by a corresponding C.W. Brabender® Control Console or Circulator System.

All Single Screw Extruders are interchangeable and can easily attach to any C.W. Brabender® Plasti-Corder® Torque Rheometer or Drive Unit.

## Single Screw Extruders



- Laboratory Sample Preparation
- Polymer Throughput Studies
- Product Development
- Processability Studies
- Pressure Tests
- Extrusion Profiles
- Small Scale Processing

# Single Screw Extruders

## Technical Data

The 416 stainless steel, honed and nitrided barrels are manufactured in various L/D ratios. The extruders are equipped with two ports near the screw tip for either a transducer or a stock temperature thermocouple, and a rupture safety plug. Barrels can be supplied with grooves for improved shearing and positive transport of material in the extruder. Other designs and alloys can be provided for special applications.

Screw Diameter	Screw Torque	Operating Temperature	PSI
1/2"	25 Nm (2,500 mg)	400 °C	10,000
3/4"	120 Nm (12,000 mg)	400 °C	10,000
1-1/4"	240 Nm (24,000 mg)	400 °C	10,000

## Customer Satisfaction

C.W. Brabender® Instruments, Inc. provides unparalleled service and technical support for our customers by employing highly skilled tradesmen, service technicians, and an experienced sales force.

We have a modern application laboratory located at our National Headquarters to benefit the interests of our customers. An experienced technician shall attend to the specific needs of each and every individual, and shall remain present throughout the entirety of the test and trial periods in order to assist in the customer's quest for desired results.

To arrange for a personal demonstration of the C.W. Brabender® Extruder product line, contact the technical staff at C.W. Brabender®.

Discuss what WE can do  
for YOU...

Dual Stage Mixing Screw



Venting Screw



Standard Screw



### L/D Ratio

10:1, 15:1, 20:1, 25:1, 30:1

20:1, 25:1, 30:1

20:1, 25:1, 30:1

20:1, 25:1, 30:1

20:1, 25:1, 30:1

25:1, 30:1

25:1, 30:1

### Screw Design

1:1 up to 5:1 Compression Ratio

Metering Screw

Single Stage Mixing Screw

Dual Stage Mixing Screw

Nylon Screw

\* Venting Screw

\* Venting/Mixing Screw

\* Also Available for 1-1/4" 20:1 L/D Ratio

Other mixing screw geometries available -- consult manufacturer.