

## Brabender<sup>®</sup> Polymix

Laboratory  
two-roll mill



Brabender

## Basic features

The Polymix is equipped with two rolls made of corrosion resistant steel, surface hardened and polished. They are mounted in slide bearings which are automatically oil lubricated by a central pump. High temperature sealings are used for the bearings.

The machine is equipped with two drive motors installed under the roll unit. Transmission is done through roller chains

on one side of the machine in order to separate the drive motors from the electrical side (heating).

Both rolls run at a fixed speed and with a constant friction ratio. Optionally, the motors can be equipped with frequency converters which permits to adjust friction of one of the rolls, speed of both rolls, and a free adjustment of speed and friction.

## Safety

Safety is a fundamental feature of this machine. An appropriate certificate was delivered by the competent authorities.

Two safety bars are mounted above the rolls which can be actuated in case of danger.

Apart from that, two knee switches are installed on both sides of the mill. The motors are stopped by spring-loaded brakes. The gap opens automatically within 3 s max.

## Gap adjustment

In order to guarantee free access to the working area, the front roll is fixed and the rear one is adjustable. Infinite gap adjustment is done centrally through a toggle system. High and constant force is achieved within the working area (0.3 to 2 mm).

The gap value is indicated digitally with a maximum opening of 50 mm.

Quick safety opening is provided via an electric motor and a ball spindle.

## Heating

Temperature control is done through a micro-processor controlled temperature controller. Heating is achieved by heating cartridges installed in the rolls and ensuring an even temperature distribution over the whole roll width. The actual temperature is measured by a thermocouple. An automatism allows cooling after completion of the working process, the rotation of the rolls being stopped after having reached a certain temperature below the set one.

## The Brabender® support

A modern application laboratory is at the disposal of all customers and interested parties for trials with their own material. All Brabender® measuring systems can be tested under practice-oriented conditions. An experienced expert team will assist the tests and will stay at your disposal at any time for further questions.

Apart from that, numerous articles dealing with the application of the Brabender® instrument systems for manifold tests have been published all over the world during the past decades. We shall be pleased to send you a bibliography comprising about 1500 articles at present.

Together, we will find the optimum solutions for your special problems and prove their suitability.

### Technical data

Roll diameter	110 mm
Roll width	350 mm
Working width	280 mm
Roll speed	22/27 min <sup>-1</sup>
Power	2 * 1.5 kW
Torque	500 Nm
Roll temperature	up to 220°C
Heating capacity (each roll)	3.0 kW
Dimensions (H * W * D)	1250 * 1200 * 650 mm
Weight	approx. 650 kg

Subject to change of design and technical modification without notice.

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