TECHNICAL DATA SHEET

Polytevo Series Two-Roll Mill

Laboratory two-roll mill · Ø120 / Ø150 × L350 mm rolls · RT to 300°C · dual servo drive · PLC color touch screen



Polytevo Series Two-Roll Mill (ACS-7007-120 shown)

The Polytevo Series Two-Roll Mill (ACS-7007-120 and ACS-7007-150) is a PLC-controlled laboratory two-roll mill with electric heating and dual servo drive; the ACS-7007-150 adds water cooling. Image shown for reference; final configuration is confirmed in the quotation.

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SECTION I

Product Overview

Polytevo Series Two-Roll Mill (ACS-7007-120 and ACS-7007-150) is a PLC-controlled laboratory two-roll mill with electric heating, a temperature range of RT to 300℃, dual servo motors and a roller speed of 0–60 r/min, offered with Ø120 mm or Ø150 mm rolls.

The ACS-7007 series plasticizes and disperses polymers such as plastics. The rolls heat evenly and cool down quickly, and a stepless speed control system allows flexible adjustment of the roll friction ratio and roll speed to meet the dispersion requirements of different formulations. The ACS-7007-150 adds water cooling, which can be connected to a municipal water supply or a cold water chiller.

SECTION II

Core Advantages

— **Two roll sizes** ACS-7007-120 has Ø120 × L350 mm rolls with electric heating (4 kW); ACS-7007-150 has Ø150 × L350 mm rolls with electric heating (6 kW) and water cooling.

— **Dual servo stepless speed control** Roller speed 0–60 r/min from dual servo motors (1.5 kW × 2) with a planetary gear reducer; the roll friction ratio and roll speed are adjustable.

— **Manual roll gap with PLC display** Roll gap adjustable from 0–10 mm by handwheel, with a synchronous display on the PLC; suited to different sheet thicknesses.

— **Knee safety door** In an emergency, pressing the safety door with the knee reverses the rolls immediately.

— **PLC color touch screen** PLC programmable color touch screen to set and display process parameters such as roll temperature and speed.

— **Mirror chrome-plated rolls** High-hardness chrome-plated rolls with an HRC58–62 mirror chrome surface: uniform heating, smooth, wear-resistant, non-stick and easy to clean.

— **Pull-rod emergency stop** Touching the yellow pull rod with the body or hand triggers an emergency stop and the rolls reverse automatically.

— **Emergency stop button panel** Red mushroom-head emergency stop buttons with a running indicator light, at multiple positions.

SECTION III

Specifications

Technical data — ACS-7007 series

Specifications	
Parameter	**Specification**
Brand	Polytevo Series by ACS Material
Product Name	Polytevo Series Two-Roll Mill
Models	ACS-7007-120 / ACS-7007-150
SKU #	ERP7TRM1 (ACS-7007-120) / ERP7TRM2 (ACS-7007-150)
Product type	Laboratory two-roll mill
Temperature range	RT to 300℃
Controller	PLC programmable color touch screen; sets and displays process parameters such as roll temperature and speed
Heating method	Electric heating
Temperature accuracy	±3℃
Roller gap	0–10 mm adjustable, manually adjusted, with PLC display
Roller material	High-hardness chrome-plated roller
Roller surface	HRC58–62 mirror chrome plating
Roller speed	0–60 r/min (controlled by dual servo motors + planetary gear reducer)
Motor power	1.5 kW × 2, dual servo motors
Safety protection	Multiple emergency stop buttons; pull-rod emergency stop, rolls reverse; knee-operated safety door, rolls reverse
Power supply	AC 380 V, three-phase, five-wire (power connection point provided by the customer)

Model comparison — ACS-7007-120 / ACS-7007-150

Model comparison		
Parameter	**ACS-7007-120**	**ACS-7007-150**
SKU #	ERP7TRM1	ERP7TRM2
Roller dimensions	Ø120 × L350 mm	Ø150 × L350 mm
Heating power	4 kW	6 kW
Outline dimensions (W × D × H)	1030 × 520 × 1410 mm	1210 × 625 × 1470 mm

ACS-7007-150 additional specification

ACS-7007-150 additional specification	
Parameter	**Specification**
Cooling-down method	Can be connected to a municipal water supply or a cold water chiller

Scope of delivery

- **Standard configuration:** the two-roll mill main unit of the selected size.
- **Scope of supply** — final accessories and scope of supply are confirmed in the quotation.

SECTION IV

Applications

For laboratory and small-batch R&D thermal plasticating, mixing and dispersion of polymers.

Product value: chrome-plated rolls with RT to 300℃ electric heating, 0–60 r/min dual servo speed control and multiple safety stops, in Ø120 mm and Ø150 mm sizes.

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