TECHNICAL DATA SHEET

Polytevo Series Recirculating Single-Screw Extruder

Laboratory recirculating single-screw extruder · Ø20 mm · 1–120 rpm · up to 380℃ · circulating flow channel and reversing valve



Polytevo Series Recirculating Single-Screw Extruder (ACS-7008ZM) — representative configuration

The Polytevo Series Recirculating Single-Screw Extruder (ACS-7008ZM) is a laboratory single-screw extruder with a circulating flow channel and reversing valve. Image shown for reference; final configuration is confirmed in the quotation.

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SECTION I

Product Overview

Polytevo Series Recirculating Single-Screw Extruder (ACS-7008ZM) is a laboratory single-screw extruder with a circulating flow channel and a reversing valve, a Ø20 mm screw at 1–120 rpm, six temperature control zones and a maximum temperature of 380°C.

The ACS-7008ZM is a single-screw extruder specially developed for mixing new materials. Its circulating flow channel and reversing valve let the material circulate or be extruded, and it can be used on test benches or in fume hoods. It is suitable for laboratory mixing, plasticization and extrusion of polymer materials such as engineering plastics, modified plastics and masterbatches.

SECTION II

Core Advantages

— **Circulation or extrusion** A circulating flow channel and a reversing valve switch the material between circulation and extrusion.

— **Hinged barrel** The barrel opens by 120° on a hinge.

— **Servo-driven screw** 400 W servo motor and a screw speed of 1–120 rpm.

— **Manual or automatic feeding** Manual feeding as standard; automatic feeding is optional.

— **Bench or fume hood use** Compact enough for use on test benches or in fume hoods.

— **Six temperature control zones** Six temperature control zones with ±0.5°C control accuracy and 1500 W heating power.

— **Pressure and temperature data** Data acquisition of pressure and temperature, with touch screen control.

— **Small circulating batches** Material mass per cycle: 30 g; extrusion rate: 2.5 kg/h.

SECTION III

Specifications

Technical data — ACS-7008ZM

Specifications	
Parameter	**Specification**
Brand	Polytevo Series by ACS Material
Product Name	Polytevo Series Recirculating Single-Screw Extruder
Model	ACS-7008ZM
SKU #	ERP7RSS1
Product type	Laboratory recirculating single-screw extruder
Screw diameter	Ø20 mm
Effective length	183 mm
Screw material	38CrMoAlA, nitriding treatment
Barrel material	38CrMoAlA
Feeding mode	Manual feeding; automatic feeding optional
Barrel opening mode	120° hinged opening
Power supply	AC 220 V, 50 Hz
Servo motor power	400 W
Screw speed	1–120 rpm
Temperature control zones	6
Heating power	1500 W
Maximum temperature	380°C
Temperature control accuracy	±0.5°C
Material mass per cycle	30 g/cycle
Extrusion rate	2.5 kg/h
Touch screen	Fitted
Data acquisition	Pressure, temperature
Weight	65 kg

Scope of delivery

— **Standard configuration:** the ACS-7008ZM extruder with manual feeding.

— **Scope of supply** — optional automatic feeding and final accessories are confirmed in the quotation.

SECTION IV

Applications

For laboratory mixing, plasticization and extrusion of engineering plastics, modified plastics and masterbatches; laboratory formula development and quality control; teaching, research and small-scale production.

Product value: material circulation or extrusion on one machine, with a Ø20 mm screw, six temperature control zones and up to 380℃.

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