TECHNICAL DATA SHEET

Polytevo Series Twin-Screw Extrusion and Pelletizing Line

Laboratory twin-screw compounding and strand pelletizing line · Ø22 mm, L/D 42:1 · up to 600 rpm · 5.5 kW · 5–10 kg/h



Polytevo Series Twin-Screw Extrusion and Pelletizing Line (ACS-7009P-20B) — representative configuration

The Polytevo Series Twin-Screw Extrusion and Pelletizing Line (ACS-7009P-20B) is a laboratory compounding line with a twin-screw extruder and water-cooled strand pelletizing. Image shown for reference; final configuration is confirmed in the quotation.

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Revision Date **11/13/2026**

SECTION I

Product Overview

Polytevo Series Twin-Screw Extrusion and Pelletizing Line (ACS-7009P-20B) is a twin-screw compounding and strand pelletizing line with a Ø22 mm twin-screw extruder (L/D 42:1, up to 600 rpm, 5.5 kW), an output of 5–10 kg/h and approximately 3 × 3 mm pellets.

The ACS-7009P-20B compounds PE and PP on a co-rotating twin-screw extruder with a modular screw and barrel. The line runs from a twin-screw volumetric feeding system through twin-screw compounding to a water-cooled strand pelletizing system (water bath, air knife and strand pelletizer). The final product is cylindrical pellets of about 3 × 3 mm; the output of 5–10 kg/h depends on the raw material, formulation and process conditions.

SECTION II

Core Advantages

— **Twin-screw compounding** Ø22 mm screws on 18.4 mm center distance, L/D 42:1, with a maximum screw speed of 600 rpm and a 5.5 kW main motor.

— **Volumetric twin-screw feeding** A twin-screw volumetric feeder (0.37 kW) with a stainless steel, deep-groove screw feeds the extruder.

— **Water-cooled strand pelletizing** A stainless steel water bath with 3 stripping rollers and a movable, height-adjustable belt conveyor, an air knife to remove surface moisture and a quick-opening strand pelletizer for up to 6 strands.

— **Interlock protection** The main unit is sequence-interlocked with the feeder; the main motor has overcurrent, undervoltage, phase loss, overheating and locked-rotor shutdown protection.

— **Modular screw and barrel** Building-block screw elements connected to the shaft by splines, and a modular barrel; the screw elements can be re-arranged for the desired mixing, shearing and dispersion.

— **Vacuum venting** A vacuum venting system with a maximum vacuum degree of −0.095 MPa.

— **Strand die** Ø4 mm die holes, with one 1-hole and one 2-hole template; independent die heating control with melt temperature and pressure monitoring points and a high-pressure alarm.

— **PLC control** PLC control with a touch screen; the PLC supports Ethernet connection and PROFINET integration with the user's on-site control bus.

SECTION III

Specifications

Technical data — ACS-7009P-20B

Specifications	
Parameter	**Specification**
Brand	Polytevo Series by ACS Material
Product Name	Polytevo Series Twin-Screw Extrusion and Pelletizing Line
Model	ACS-7009P-20B
SKU #	ERP7TSP1
Product type	Laboratory twin-screw compounding and strand pelletizing line
Raw materials	PE/PP
Final product	Pellets of approx. 3 × 3 mm
Output	5–10 kg/h (depends on raw material, formulation and process conditions)
Extruder type	Co-rotating twin-screw extruder
Screw diameter	Ø22 mm
Center distance	18.4 mm
Screw L/D	42:1
Maximum screw speed	600 rpm
Main motor power	AC motor, 5.5 kW
Screw and barrel structure	Modular (building-block) screw elements with spline connection; modular barrel
Feeder	Twin-screw volumetric feeder, 0.37 kW, stainless steel deep-groove screw
Vacuum system	Maximum vacuum degree −0.095 MPa

Technical data — ACS-7009P-20B (continued)

Specifications	
Parameter	**Specification**
Strand die	Ø4 mm holes; one 1-hole and one 2-hole template
Water bath	304 stainless steel, 150 mm wide, 3 stripping rollers, movable belt conveyor, height adjustable
Strand pelletizer	Quick-opening design; maximum 6 strands; motor 0.75 kW
Control	PLC control with touch screen; Ethernet and PROFINET connection
Power supply	AC 380 V, three-phase, 50 Hz

Scope of delivery

— **Standard configuration:** twin-screw volumetric feeder, twin-screw extruder, vacuum system, water cooling system, strand die, water bath, air knife, strand pelletizer, electrical control cabinet, PLC and touch screen control system and spare parts (1 set each).

— **Scope of supply** — items not within the scope of supply (foundations, lifting, cabling, installation, piping, media) are listed in the quotation; final configuration is confirmed in the quotation.

SECTION IV

Applications

For laboratory compounding of PE and PP formulations on a co-rotating twin-screw extruder and pelletizing into pellets of about 3 × 3 mm.

Product value: a Ø22 mm twin-screw compounding line (L/D 42:1, up to 600 rpm, 5.5 kW) with vacuum venting and water-cooled strand pelletizing at 5–10 kg/h.

Revision Date: 11/13/2026

DISCLAIMER

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