



ACS Material Equipment Series

Polytevo Series - Precision Injection Molding Machine

- | | |
|------|------------------------|
| I. | Product Composition |
| II. | Product Features |
| III. | Product Specifications |

Contact Information:

ACS Material, LLC

Address: 959 E Walnut St., Suite 100

Pasadena, CA 91106, USA

Phone: (866) 227-0656

Fax: (781) 518-0284

E-Mail: contact@acsmaterial.com

Revision: 071525

Product Composition

1. Precision Injection Molding Machine



(Pneumatic Precision Injection Molding Machine)



(Hydraulic Precision Injection Molding Machine)

Product Features

The Precision Injection Molding Machine is a scaled-down and improved version of a production model, featuring a compact size, full functionality, and high mobility. It is ideal for classroom teaching, laboratory formulation R&D, and small-scale part manufacturing. The system includes mold opening/closing components, injection unit, machine frame, heating system, control system, and feeding device. It offers a simple structure, easy operation, and is noise- and pollution-free.



Key features include a quick-change core-pulling mold design, allowing for easy and cost-effective mold replacement. The machine is equipped with a PLC human-machine interface featuring a color touchscreen and one-button operation, making it simple to use and maintain. In addition, it is designed with both mechanical and electronic safety systems to ensure reliable and secure operation.

Product Specifications

Product	Precision Injection Molding Machine	
Model	ACS-7003	ACS-7003H
SKU#	ERP7IM01	ERP7IMH1
Screw Diameter	20 mm	20 mm
Screw L/D Ratio	-	20:1
Injection Rate	-	0-26.7 cm ³ /s (0-85 mm/s)
Segmented Injection	-	Up to 3 segments; Pressure, position, time controlled
Feeding Torque	105 N · m (Servo Motor + Planetary Gearbox)	215 N · m
Injection Range	0-80 mm	0-90 (0-28 cm ³), adjustable
Injection Resolution	0.1 mm	0.1 mm
Max Shot Volume	25 cm ³	28 cm ³
Air Pressure	≥ 0.8 MPa	-
Injection Force	1.8 T	-
Max Injection Pressure	57 MPa	0-137 MPa (0-4.3 T) Adjustable
Clamping Force	5 T (Double Toggle Clamping System)	0-150 kN, adjustable

Ejection Pressure	-	0-8 kN, adjustable
Ejection Stroke	-	0-30 mm
Hopper Capacity	0.2 L	0.2 L
Feeding Speed	0.1-60 rpm	1-120 rpm
Fixed Mold Ring Outer Diameter	50 mm	50 mm
Tie Bar Distance (Center-Center)	280 x 186 mm	300 x 226 mm
Max Mold Opening Stroke	70mm (excluding mold)	120 mm
Mold Size	360 x 90 x 72 mm (L x W x H) *excluding mold insert	360 x 90 x 72 mm (L x W x H) *excluding mold insert
Mold Thickness	0-25 mm	-
Max Temperature (Zone 1/2/3)	360 °C	360 °C
Mold Heating (Optional)	-	Room Temperature +10 °C to 120°C adjustable
Temperature Control Accuracy	±0.5 °C (in steady-state conditions)	±0.5 °C (in steady-state conditions)
Power Supply / Max Load Power	Single-phase AC 220V ± 10%, 50 Hz, 2200 W, 10A	Three-phase 5-wire AC 380 V ± 10%, 50/60 Hz, 5.5 kW
Machine Dimensions	1800 x 500 x 950 mm	1766 x 600 x 1226 mm
Applicable Materials	Engineering plastics such as PP, PE, PA, ABS, etc.	PP, PE, PA, ABS, PBT, PLA
Gross / Net Weight	530 kg / 480 kg	730 kg / 680 kg

Mold Type (Not included, available for purchase)

	Integrated Mold <ol style="list-style-type: none">1. Mold replacement requires disassembling the entire mold2. Suitable for producing a single type of specimen.
	Interchangeable Core Mold <ol style="list-style-type: none">1. Easy to replace – core change can be done within 10 seconds.2. Suitable for producing specimens of various shapes and sizes.

Required Auxiliary Equipment (Not provided)

	Pneumatic Precision Injection Molding Machine	Hydraulic Precision Injection Molding Machine
Air Supply	Pipeline air or air compressor. Displacement $\geq 0.17 \text{ m}^3/\text{min}$; Pressure 0.8-1.3 MPa; Compressor capacity approx. 60L	-
Air Hose	Outer diameter 12 mm, thick-walled air hose (stronger than typical water hose); Length depends on setup and distance from compressor.	-
Power Supply	Single-phase AC 220V $\pm 10\%$, 50 Hz, 2200 W, 10A	Three-phase 5-wire AC 380 V $\pm 10\%$, 50/60 Hz, 5.5 kW
Water Supply	If equipped with water cooling, customer needs to prepare water source and tubing.	If equipped with water cooling, customer needs to prepare water source and tubing, or provide a chiller.
Hydraulic Oil	-	40 L of 46 high pressure antiwear hydraulic oil

Disclaimer: ACS Material, LLC believes that the information in this Technical Data Sheet is accurate and represents the best and most current information available to us. ACS Material makes no representations or warranties either express or implied, regarding the suitability of the material for any purpose or the accuracy of the information contained within this document. Accordingly, ACS Material will not be responsible for damages resulting from use of or reliance upon this information.