ACS Material Equipment Series

Extrova™ Micro-conical Extruder

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Product Overview

The Micro-conical extruder is a small instrument developed for mixing new materials and can be used on a test bench or fume hood. The maximum processing capacity is 15 ml, which can solve the problem that the amount of synthetic materials is insufficient or expensive. The core component of the instrument consists of a non-leaking mixing chamber that can be opened 180° flat, and two removable conical screws. The screw and mixing chamber are treated with minimum wear and chemical resistance. The chemical resistance and hardness of the sleeve must be able to maintain its initial geometry to ensure repeatable data for several years. The main drive is continuously digitally variable and allows measurement of axial forces, allowing for control of the pressure and flow of the fixed die for drawing and spinning.

Product Features

- Micro-design: The micro-compounder can process batch volumes up to 15ml, which is especially suitable for research experiments of small batch samples.
- Simulated configuration: The screws are spiral variable and pitch variable, which effectively prevents the high viscosity polymer from climbing the screws. Recirculation channel design can simulate the residence time.
- Diversified processing: Rheological control software enables you to measure the rheological properties of the mixture. Variety experimental mode includes single cycle compounding, timing cycle compounding, continuous feed compounding, constant speed compounding and constant torque compounding.

- Easy to Clean: The barrel can be opened 180° flat to facilitate the cleaning and maintenance of the chamber and screw.
- Simple operation: It takes only ten minutes from melting, polymerization and extruded to the injection molded spline.
- Extended Function: Various extension modules for extrusion, injection molding, film drawing, spinning etc.

Product Specifications

Product Name	Extrova™ Micro-conical Extruder
SKU#	ERMCE001
Electric Heating Power	1600 W
Maximum Temperature	350℃
Temperature Control Accuracy	±0.5℃
Cylinder Material	S136
Pressure Sensor	PT Digital Pressure feedback pressure gauge
Delta Servo Motor Power	750 W
Screw Speed	1~150 rpm
Torque Measurement Range	0~200 N.m
Power Supply	220V/50Hz
Interface	PLC
Circulation Extrusion Raw Material Consumption	15g/time
Direct Extrusion Raw Material Consumption	1.5kg/h (max)
Dimensions	580*360*780mm

Application Fields

1. Plastic pipes: conical twin-screw extruder is widely used to manufacture PVC, HDPE, PP pipes, drainage pipes, water supply pipes and other plastic pipes.
2. Plastic sheet: conical twin-screw extruder can be used to produce PVC, PE, PP, PC, PMMA, PS and other plastic sheets.
3. Plastic products: conical twin-screw extruder is widely used in the production of plastic products, such as plastic drums, boxes, bottles, injection molded products, sealing film, etc.

4. Alloy products: conical twin-screw extruder is also widely used in the production of magnesium alloy, aluminum alloy, copper alloy and other materials.
5. Rubber: conical twin-screw extruder can produce all kinds of rubber products, such as tyres, tubes, seals, rubber sheets and so on.