ACS Material Equipment Series

RheoPro™ Fiber Drawing Machine

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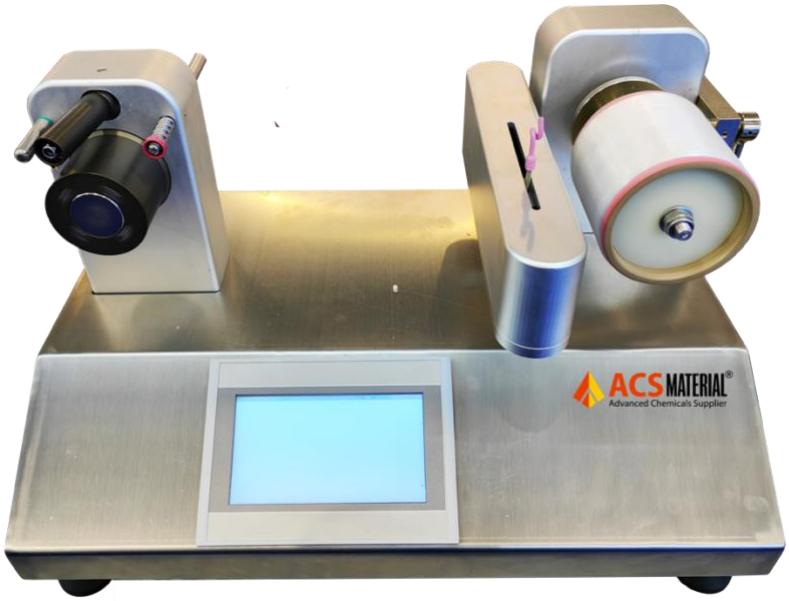
Product Overview

The miniature fiber drawing machine is an experimental instrument for drawing and winding high polymer after melting and extruding at high speed.



Product Features

1. Smaller samples lead to faster sample generation, utilizing only a fraction of the material compared to conventional fiber development.
2. The continuous feeder kit eliminates the need for an additional spinning pump, as our micro compounder features throughput control to ensure a uniform fiber diameter.
3. A high-speed winding unit (up to 200 m/min) and low-speed stretching unit characterize this innovative design, allowing the equipment to fit on a laboratory bench.
4. Variable settings, including speed, overlap pitch, heating modes, and other adjustments, enable the production of various types of fibers.
5. The stretching/conditioning unit features a controlled supply and take-up roll, along with a heating element to precisely control fiber drawing speed, draw ratio, and drawing temperature. The unit can be configured for hot or cold drawing/stretching of fibers using independently speed-controlled godets, ensuring a reproducible process and product.

Product Specifications

Product Name	RheoPro™ Fiber Drawing Machine
SKU#	ERFBD001
Guiding Roller Diameter	75mm
Winding Width	10~160 mm (1mm interval)
Drum Lifts	1
Winding Speed Control	Max 200m/min
Transverse Guide Pitch	0.1~4mm (0.1mm interval)
Fiber Mold	Diameter 0.25~1.5mm, interval 0.25mm
Interface	PLC controller with Integrated Touch Screen
Voltage Supply	220~240V AC, or as required
Dimensions	670*495*450mm
Weight	About 35kg

Application Fields

A fiber drawing machine finds versatile applications across various fields, including the production of plastic bags, woven materials, and medical surgical sutures. It plays a crucial role in the manufacturing of building materials and 3D printing wires, contributing to the advancement of construction and additive manufacturing industries. Additionally, the machine excels in producing composite fibers, demonstrating its adaptability and significance in creating innovative materials across different sectors.