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No.666 Labo Plastomill Micro

APPLICATION

Research is being conducted in thermoplastic resins,
thermosetting resins, elastomers, etc. to develop composite materials by various composition techniques such as blending, alloying or filling of different polymer materials and intensive research is going on to develop high function and high performance compound materials.

Recently in fillers, miniaturization is progressing, materials of nano order are being used and through uniform dispersion instead of cohesion of these materials, composite materials are heading towards noncomposition in order to achieve rapid improvement of characteristics that could not be realized until now and we are entering into nanotechnology age.

Labo Plastomill Micro is a testing machine manufactured to respond to the needs of the time. It is a desktop type tester designed to evaluate kneading and extrusion characteristics of very small quantities of materials produced these days by composition at laboratory leve, special high cost materials or, for example, materials that can be obtained only in very small quantities in application and research, etc. of compound materials of nature being marked as compound materials of next generation.

FEATURES

- Torque (calculated from current), resin temperature and pressure can be measured. (Pressure sensor is option)
- Test can be conducted by recalling registered conditions by means of touch screen.
- Data curve is displayed on touch screen.
- Data curve can be output to mini printer. (Option)
- Compact desktop model. (W400 x D600 x H630mm)
- Plenty of safety measures – torque, pressure and temperature limiters and mixer disassembly safety circuit, etc.
- Data can be transferred in spreadsheet format through RS232C interface. (Option)

SPECIFICATIONS

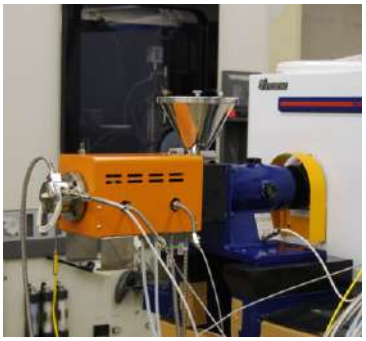
Labo Plastomill Micro

Speed range	0 to 100rpm (±0.1% / FULL)
Max. torque	40Nm
Temperature range	0 to 400ºC
Motor power	0.4kW
Torque detection	Electric current conversion
Torque measurement accuracy	±10% (in range of 10% or greater against max. torque)
Pressure & temperature amplifier	1 channel each (Standard)
Temperature controller	3 channel
Safety guards	● Torque & Temperature limiter ● Emergency stop switch
Power supply	Single-phase, AC100V, 5A
Dimensions	W400 x D600 x H630mm
Net Weight	Main unit: approx. 50kg

Segment mixer, model KF6 / KF6V

Disk model	Disk I (option) and Disk II (standard) Please select Disk I or Disk II
Chamber capacity	Disk I: Approx. 6cm^3 Disk II: Approx. 5cm^3
Shape of blade	Disk
Chip clearance	Disk I: 0.75mm Disk II: 0.3mm Disk I: 0.88mm Disk II: 0.3mm
Rotation speed	Triple speed (3 times of motor rotation speed)
Blade revolution ratio	1:1
Sample insertion system	Rack and pinion type lever (KF6: Lever type)
Heating system	Electric
Max. temperature	350°C
Main application	Thermoplastic (Very high shear)
Max. permissible torque	40N.m
Cooling device (Equipped as standard)	Compressed air cooling (Water cooling is possible under 100°C)
Power supply	Single-phase, AC100V, 15A

Single screw extruder, model D1220



Screw diameter	Ø12mm
L/D	20
Max. temperature	350ºC
Heating system	Electric
Heating zone (Cylinder)	2
Air cooling (Cylinder)	Possible
Vent port	N/A
Pressure meas. hole	1
Standard die head	Strand die (Ø2.5mm x 1)
Standard screw	Full flight screw (CR=2.5)
Standard hopper	Steel hopper
Power supply	Single-phase, AC100V, 12A

Small pelletizer, model MPETC1

Pellet length	3mm fixed
Take up speed	2 to 8m/min.

Small film take-up device, model FT2B8

Cooling roll	Ø80 x 80mm
Take up speed	0.3 to 5m/min.
Air knife	Included (Compressed air required)

Specifications are subject to change without notice.

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