

BP-8176-BT

LABORATORY SINGLE SCREW EXTRUDER/BENCH-TOP PLC CONTROL TYPE

This machine is suitable for polymer processing molding, especially for a small amount of samples for scientific research and development, to simulate the plastic processing of various aspects of continuous and discontinuous process, especially suitable for the teaching and research and development.

1. Output: about 3-6kg/h, specific according to the raw material process formula
2. Temperature range: ~300°C
3. Temperature accuracy: $\pm 1^\circ\text{C}$
4. Screw diameter: 16mm, 20mm optional
5. Length ratio: 1:28 other length diameter ratios(10-30 times) optional
6. Rotation speed of screw: 0-285rpm frequency control
7. Screw material: 38CrMoAl chromium molybdenum steel. With the surface-layer processing of tempering, nitriding, chroming, polishing and super-precision grinding, the roughness $R_a \leq 0.4\mu\text{m}$, nitriding depth $\geq 0.6\text{mm}$, hardness HRC55~60
8. Barrel material: 45# carbon structural steel. With the surface-layer processing of tempering, nitriding, chroming, polishing and super-precision grinding, the roughness $R_a \leq 0.4\mu\text{m}$, nitriding depth $\geq 0.6\text{mm}$, hardness HRC55~60
9. Heated zone : 4 heaters at charging barrel area, 1 heater in handpiece area, external covered with safety protective wind hood.
10. Cooling device: 3 groups of multi wing fans with super static forced air cooling
11. Hopper: Made of 304 stainless steel material material, equipped with a slide rail type quick discharge device
12. Melt temperature: High precision melt temperature sensor monitors changes in melt temperature
13. Melt pressure: 0-40MPa high precision melt pressure sensor detects changes in head pressure, interlock loop control of the host running
14. Drive motor: Precision gear reduction motor
15. Electric control system: PLC programmable color touch screen, man-machine interface operation system, extrusion process can be displayed and monitored dynamically, including temperature control, driving, speed, pressure, interlock and intercontrol function.
16. Safety protection: The melt pressure is interlocked with the host for overpressure alarm protection; the melt temperature is interlocked with the host for low temperature start-up protection
17. Power supply: 3 ϕ , AC380V, 50Hz, three phase and five line
18. Dimension: 750×712×727(W×D×H) mm
19. Weight: About 125KG

Feature

1. The screw diameter is optional: 16\20\25\30 and the length of ratio: 10-30 times can be optional, expanding the scope of processing.
2. The screw barrel is made of 38CrMoAl special tool steel. With the processing of nitriding, tempering, chroming and super-precision grinding, it becomes hard and wear-resistant, extremely corrosion-resistant.
3. The screw equipped with feeding section, transportation section, compression zone and mixing head can process all sorts of materials, achieving the best dispersion effect.
4. It is 0-80rpm stepless frequency control to meet extrusion process requirements of different materials.
5. Electric lap heater is used to heat charging barrel, easy to maintain and install. The independent heating of five areas can ensure the temperature meet the requirements. The barrel adopts 4 groups of multi-wing ultra-quiet fans to cool forcedly.
6. The die head adopts quick connecting loop, fast to remove head and easy to connect with downstream equipments, time-saving and energy-saving during test conversion.
7. Flow distribution plate and filter mask can be installed to prevent non-molten particles and impurities, in other to improve the melt pressure to ensure plasticizing quality.
8. PLC programmable color touch screen, man-machine interface operation system, extrusion process dynamically can be displayed dynamically and monitored. Equipped with USB data output interface, easy to input and print.

