BP-8180-B

LABORATORY INJECTION MOLDING MACHINE/PLC CONTROL

This machine is compact in size, easy to operate, and adopts a fully hydraulic control method with strong injection pressure, which can meet the injection molding needs of any high-precision small product.

I. Typical application

1) Production of micro precision parts
2) Small batch production
3) Laboratory testing and sampling
4) Teaching and training

II. Characteristic description

1) PLC programmable touch screen, human-machine interface operation, 10 language options to meet the needs of domestic and foreign users
2) A variety of curve display, injection curve, speed curve, temperature curve, real-time and historical curve display function
3) Temperature, time, pressure, flow rate, back pressure, and speed preset functions. There are three working modes: manual mode, semi-automatic mode, and fully automatic production
4) Adopting a fully hydraulic control system with strong injection force, it can meet the injection molding needs of any high-precision small part
5) Screw plasticization injection is integrated, with synchronous melting and injection, resulting in more complete plasticization, faster barrel temperature rise, and shortened injection molding cycle
6) Temperature control can be scheduled in advance, with timing switch heating function to improve production efficiency
7) Modular combination of molds, plug-in mold cores, time-saving and labor-saving mold replacement, fast and convenient

III. Specification parameters

1. Temperature range: Room temp. ~ 300℃
2. Temperature accuracy: ±1 ℃
3. Screw diameter: 22mm
4. Screw length diameter: 15:1
5. Screw rotation: 0-165rpm
6. Screw material: 38CrMoAl chromium-molybdenum alloy, the surface is treated by quenching and tempering, nitriding, chrome plating, polishing and ultra-fine grinding, roughness Ra≤0.4 μm, depth of nitride layer ≥0.6mm, hardness HRC55～60
7. Barrel material: 45# carbon structural steel, the surface is treated by quenching and tempering, nitriding, chrome plating, polishing and ultra-fine grinding, the roughness Ra≤0.4 μm, the depth of the nitride layer reaches ≥0.6mm, and the hardness is HRC55～60

8. Heating zone: Heater in 3 areas of charging barrel, heater in 1 area of handpiece. Each area is covered with security wind shield
9. Hopper: 304 stainless steel material material, equipped with a sliding rail type quick discharge device
10. Heating power: 2.0KW
11. Electric control system: PLC programmable color touch screen, human-machine interface operation, injection process can be dynamically displayed, with temperature, time, pressure, flow rate, back pressure, and speed preset functions
12. Working mode: It has three working modes: manual, semi-automatic, and fully automatic. Manual mode: Manually operate various function buttons. Semi automatic mode: mold closing - injection - pre plastic - mold opening – ejection. Fully automatic mode: mold closing - injection - pre plastic - mold opening - ejection - timed mold closing.
13. Theory of injection capacity: 22 cm^3
14. Injection weight: 18g
15. Plasticizing capacity: 2.6g/s
16. Injection rate: 24g/s
17. Injection pressure: 14Mpa
18. Clamping force: 250KN
19. Move mould stroke: 150mm
20. Rod spacing: 240×190mm(W×H)
21. Maximum mold thickness: 220mm
22. Minimum mold thickness: 80mm
23. Ejection stroke: 40mm
24. Ejection force: 13KN
25. Ejection points: 1PC
26. Mold positioning hole diameter: 55mm
27. The maximum oil pump pressure: 14Mpa
28. Oil pump motor power: 3KW
29. Hydraulic medium: Mobil 46# anti-wear hydraulic oil (customer-owned)
30. Oil cylinder volume: 85L
31. Power: 3 ϕ，AC380V，25A
32. Dimension: 1500×660×1250（W×D×H）mm
33. Weight: About 650Kg

Feature

1. Easy operation, compact structure and good repeatability.
2. Suitable for micro injection molding and products without mirrors.
3. High accuracy and good repeatability.
4. Insert type mold, quick and convenient to replace, time-saving and labor-saving.
5. Automatic fault display and easy maintenance.
6. Computer programming variable pump energy-saving control clamping-injection-packing- preplasticizing-cooling-opening ould-eject products.
7. Color touch screen of PLC program, man-machine interface operating system

which can display and set all injection parameters such as position, pressure, speed, temperature, time and so on.