

## BP-8176-G

### SINGLE SCREW PLASTIC PIPE EXTRUSION LINE

Suitable for precision extrusion of all thermoplastic PE, PP, PS, PVC, PA, PC, PU pipes. This pipe line has uniform wall thickness, smooth surface, simple operation, stable production, and is suitable for processing small sized pipes.

#### I. Single Screw Extruder(Moveable)

1. Output: According to the raw material formulation process
2. Temperature range: normal temperature $\sim 300^{\circ}\text{C}$
3. Temperature accuracy:  $\pm 1^{\circ}\text{C}$
4. Screw diameter:  $\Phi 20\text{ mm}$
5. Length diameter ratio: 1:28 optional
6. Screw rotation speed: 0-95rpm frequency control
7. Screw material: It is made of 38CrMoAl chromium-molybdenum steel. With the surface-layer processing of quenching and tempering, nitriding, chroming, polishing and super-precision grinding, roughness  $Ra \leq 0.4\mu\text{m}$ , nitriding depth  $\geq 0.6\text{mm}$ , hardness HRC55~60.
8. Barrel material: It is made of 45# carbon structural steel. With the surface-layer processing of quenching and tempering, nitriding, chroming, polishing and super-precision grinding, roughness  $Ra \leq 0.4\mu\text{m}$ , nitriding depth  $\geq 0.6\text{mm}$ , hardness HRC55~60.
9. Heating zone: 3 zone heaters for barrel, 2 zone heaters for machine head, external covered with safety protective wind hood
10. Cooling device: 3 groups of multi wing fans with super static forced air cooling
11. Hopper: 304 stainless steel material, equipped with slide rail type rapid discharge device
12. Melt temperature: High precision melt temperature sensor monitors melt temperature changes
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: Heavy duty gear reduction motor, constant torque power output control
15. Safety protection: The melt pressure is interlocked with the host machine for overpressure alarm protection; The melt temperature is interlocked with the host machine for low temperature startup protection
16. Control system: PLC programmable color touch screen, man-machine interface operation system, can dynamically display and monitor extrusion process, including temperature control, driving, speed, pressure, interlock and intercontrol function
17. Power: 3  $\phi$ , AC380V, 50Hz Three-phase five-wire
18. Dimension:  $1250 \times 500 \times 950$  (W $\times$ D $\times$ H) mm
19. Weight: About 175 KG

## **II. Pipe mould**

1. Die form: screw shunt type head, both inside and outside layer is adjustable, uniform discharge, convenient adjustment.
2. The number of pipe: Small caliber single pipe mold with one hole
3. Pipe diameter:  $\Phi 1$ - $\Phi 15$ mm optional
4. Die head material: 2311 chromium molybdenum alloy, nitriding hardness HRC60

## **III. Vacuum cooling water tank(Moveable)**

1. Sizing set: Vacuum wear resistant copper alloy, accurate sizing, high stability
2. Vacuum pump: Water ring vacuum pump
3. Sealing device: Fully tempered glass sealed
4. Adjustment method: 3 dimensional rack (front and rear, left and right, up and down adjustable)
5. Drying fan: 90W fan for independent drying
6. Water level control: Electronic water level controller
7. Water tank material: 304 stainless steel material vacuum spray bath
8. Dimension: 1500×320×850 (W×D×H) mm
9. Weight: 105Kg

## **IV. Belt tractors (Moveable)**

1. Pulling speed: 1.5~30m/min adjustable
2. Traction belt: PU wear resistant belt
3. Belt width: 100mm
4. Belt length: 600mm(Traction effective length)
5. Accommodation mode: Precision screw adjusts the opening and closing height of upper and lower belt
6. Motor: 1KW frequency control motor
7. Power: 3  $\phi$ , AC380V, 6A
8. Dimension: 750×460×850 (W×D×H) mm
9. Weight: About 120 KG

## **V. Winding machine (Moveable)**

1. Workstation: Single workstation winding
2. Traction wheel: PU wear resistant material
3. Line arrangement: Automatic sliding cycloid device
4. Winding wheel:  $\phi$  300mm
5. Winding speed: Automatic tension winding
6. Power: 3  $\phi$ , AC380V, 5A
7. Dimension: 650×400×870 (W×D×H) mm
8. Weight: About 105 KG

## Feature

1. Extrudable pipe/micropipe(OD) range from 1mm to 50mm.
2. The die used for extrusion of pipes and hoses is made of high-grade tool steel, and the interior is polished and chrome plated.
3. The vacuum cooling tank is made of stainless steel, which contains a vacuum sizing sleeve and a cooling water nozzle, and the surface is covered with a plexiglass observation window. The standard length of the water bath for the pipe is 3 meters, the microtube/catheter is 1.5 meters, other lengths are optional.
4. Variable speed crawler traction unit, adjustable clearance, surrounded by heavy safety net, the front is Plexiglass safety door; traction unit is installed on the lockable pulley, easy to move and fix.
5. Large diameter hose/catheter/microtube/cable can be configured with stepless speed regulation winder, with swing winding function.
6. Optional laser diameter measurement and closed-loop feedback wall thickness control system.

