Ji'nan ShengTai Painting Equipment Co.,Ltd.
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1. Dimensions: L800 × W500 × H26050 mm
2. Machine Operation Sequence:

Loading → Entering spraying zone → Two- axis robotic arm spray gun opens paint flow → Coordinated movement with Y- axis and Z- axis → Workpiece stops → Spraying side surface of workpiece → Cycle repeats

3.Structural Components:

- Main frame welded from 3T × 100 × 100 square tube
- Robotic arm made of specialized aluminum profile for spraying
- Bearing housing precision- machined from aluminum block

4. Motion System:

- Y- axis: Max. stroke 2300 mm, max. speed 1.5 m/s, driven by Mitsubishi 1100W servo motor
- Z- axis: Max. stroke 300 mm, max. speed 1.5 m/s, driven by Mitsubishi 400W servo motor
- Transmission method: Synchronous drive, HIWIN linear slide rails, aluminum extrusion tracks equipped with limit switches, home sensors, and Omron sensors

5. Synchronization Device:

- Uses pulse signal from the conveyor line to determine synchronous speed
- Two spray guns simultaneously coat two workpieces

6. Technical Parameters:

- Self- rotation speed: 10—80 rpm
- Workpiece dimensions: L2000 × diameter 350 mm
- Production output: Depends on product
- Spraying method: Gun angle swing, spraying both side surfaces of workpiece

7. Spray Gun Section:

- Taiwan Mingli brand water- based spray gun WAP- 102 (1.2 mm nozzle)
- Atomization and paint regulation valves are manually adjusted; different gun process parameters can be called up during spraying for precise control and record management
- Paint circulation system and pressure- stabilizing valve: 1 set
- Pneumatic paint mixer: 1 set

- Pneumatic diaphragm water- based pump: Taiwan brand pump
- Corrosion - resistant dedicated hoses and fittings, equipped with proprietary recirculation system to reduce paint waste and enable quick color change/cleaning

8. Electrical Section:

- Taiwan - made Weintek 7 - inch touch screen, capable of storing 50 programs; digital setting of distance, speed, reciprocation count, spraying surface, etc.
- Omron PLC control, interfaced with touch- screen input
- CHINT low- voltage electrical components
- Proximity switches and other sensing elements use Japanese Omron brand
- Stations equipped with emergency stop, start, and stop buttons

9. Advantages:

- CNC servo drive ensures fast reciprocating motion and precise positioning
- Fully automated control with automatic fault detection and safety protection
- Quick digital setting of distance, angle, speed, reciprocation count, spraying surface, etc.
- Full Chinese menu interface, easy to operate, intelligent storage system, customizable programs
- Modular frame structure, easy to move and maintain
- Wide applicability and strong adaptability, capable of high - quality and high- efficiency spraying
- Uses IWATA spray gun for finer atomization, smoother finish, and paint savings

10. Sensing Devices:

- Encoder receives synchronization signal
- Proximity switches detect presence/absence of product for corresponding switching functions
- Proximity switches determine whether synchronization should be activated based on product detection

11. Work Efficiency: Depends on product