

### 汽车点火线圈全自动精密密绕线圈生产线

Full-automatic Precisely and Closely Wound Coil Production Line for Automobile Ignition Coil



#### 设备功能【Functions】

此设备实现汽车点火线圈全自动精密密绕，线圈排列整齐，外观美观，电气性能稳定。精密密绕线圈是汽车等高端线圈发展的必然趋势。

The equipment realizes full-automatic precise and close winding of automobile ignition coil with orderly arrangement, neat appearance and stable electrical performance. Precisely and closely wound coil is the inexorable trend for the development of automobile coil and other high-end coils.

#### 产品特点【Product Characteristics】

- 【1】采用 CNC 总线控制方式，控制稳定可靠。  
Adopting CNC bus control mode with stable and reliable control.
- 【2】主轴采用机械反扣结构，防止绕线过程中线架串动。  
Mechanical left-handed thread structure for spindle to avoid wire rack moving when winding.
- 【3】主轴带 0°，90°，180°，270° 三 [四个才对] 个角度精确定位，确保上下料及缠角的稳定性。  
Accurately positioning in four angles of 0°，90°，180° and 270° for the spindle to secure the stability of loading, unloading and pin wrapping.
- 【4】采用精密伺服电机张力器，漆包线线主动送线，保证绕线的品质。  
Employing precise servo motor tensioner and automatic enameled wire feeding to guarantee the winding quality.

- 【5】高安全标准，单独的安全门控制电路，确保 0 生产事故。  
High security standard and independent control circuit for emergency exit to ensure zero production accident.
- 【6】独特的引脚夹扁功能，减少缠脚圈数，后道工序品质更有保证。  
Adopting the unique pin flattening function for reducing the number of turns for pin wrapping to ensure the quality of latter processes.
- 【7】采用精密气剪断线，确保缠脚漆包线不被拉扯，线头末端一致。  
Adopting precise air shear for wire cutting to ensure that the enameled wire will not be dragged and the wire ends are consistent.
- 【8】简单的程序调整更改，确保厂家工艺人员很快学会。  
Simple program adjustment and alteration which can be quickly learned by the factory technicians.
- 【9】密码存储功能，防止非相关人员修改程序。  
Password storage function to prevent unauthorized personnel from modifying the programs.
- 【10】设备预留前后工序接口，方便实现自动化生产。  
Reserved interfaces for the previous and latter processes to facilitate automatic production.
- 【11】设备结构简单，操控容易，故障少，保养方便。  
Simple structure and easy manipulation with little breakdown and great convenience for maintenance.

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| 型号 (Model)                       | HFAF1280   |
| 主轴数 (Spindle number)             | 12   |
| 主轴转速 (Spindle speed)             | 标准 (Standard): 5,000rpm Max:18,000rpm  |
| 主轴间距 (Spindle interval)          | 80   |
| 绕线线径 (Wire diameter)             | φ 0.02~φ 0.5mm (依主轴间距和转速而异)<br>(variable according to spindle interval and speed)  |
| 控制系统 (Control system)            | 方式: 可编程控制器 (PLC), 工控机 (PC)<br>Mode: Programmable Logic Controller (PLC), Industrial Personal Computer (IPC)  |
| 控制轴数 (Number of control spindle) | 4 轴  |
| 主轴电机功率 (Spindle motor power)     | 4.4KW  |
| 电机总功率 (Total motor power)        | 7.5KW  |
| 电源 (Power supply)                | 380V (三相五线制), 50Hz 中国大陆标准电网<br>380V (three-phase five-wire), 50Hz, standard power grid of Mainland China   |
| 气源 (Air supply)                  | 0.5-0.6MPa   |
| 最大回转直径 (Max. swing diameter)     | φ 75mm (依主轴间距而异) (variable according to spindle interval)  |
| 功能 (Function)                    | 自动送料、自动绕线、自动沾锡、自动打弯、自动检测、自动下料、张力自动调节、主轴转速连续可调、绕线圈数可调。<br>Automatic feeding, automatic winding, automatic soldering, automatic bending, automatic detecting, automatic unloading, automatic tension adjustment, continuously adjustable spindle speed and adjustable number of turns. |