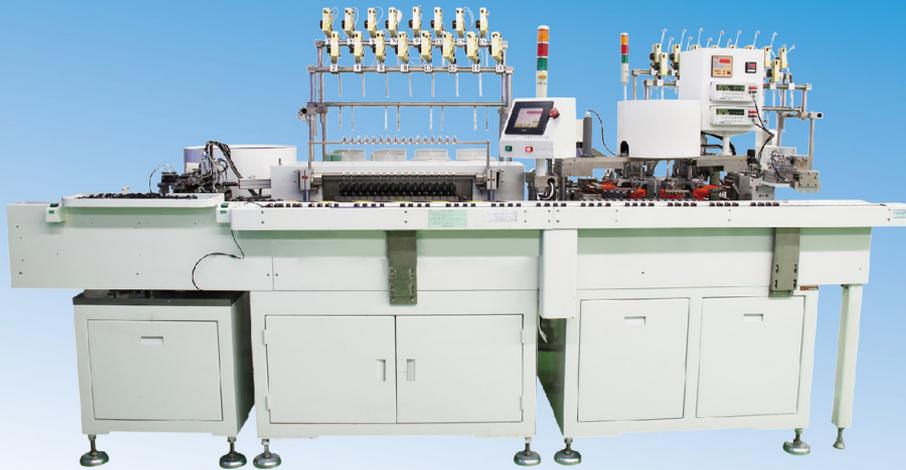


低压电器全自动线圈生产线

Full-automatic production line of coil for low-voltage electric appliance



低压电器全自动线圈生产线由绕线和沾锡二大部分组成，可集自动插端子机、自动上下料、自动绕线、自动捻线、自动沾锡、自动打弯、自动检测、自动装盘等功能于一体的全自动绕线沾锡机。绕线机系四轴联动，绕线圈数精确可设定，绕线速度自动可调，主轴标准转速6,000rpm,最高转速可达10,000rpm,对于较细线径产品的绕线，可选配捻线机构，捻线股数，捻线转速及捻线圈数可调。沾锡机系8工位周转盘式，沾锡温度260~550℃可调，温度控制精度±5℃。沾锡时间0~5秒可调，控制精度0.1秒。沾锡液面自动检测和自动补偿。

主轴电机采用进口高性能伺服电机，主轴轴承采用高精度、高转速进口轴承，三轴运动部件采用进口高精度丝杆及线性轴承保证了导针的重复定位精度。所有关键元器件采用国际知名品牌。控制上采用了进口的控制器和人机界面，方便参数设定。故障自动报警，并提示故障点，保证了绕线和沾锡的质量。

The full-automatic production line of coil for low-voltage electric appliance consists of winding part and soldering part, integrating the functions such as automatic terminal inserting, automatic loading and unloading, automatic winding, automatic twisting, automatic soldering, automatic bending, automatic detecting and automatic arranging and packing. The winding machine has a four-spindle linkage. The number of turns can be set precisely and the winding speed is adjustable. The standard spindle speed is 6,000 rpm, while the maximum spindle speed is 10,000 rpm. For winding of wire with small diameter, twisting unit with adjustable number of strands, rotating speed and number of turns is optional. The soldering machine has an eight-station rotating disk. Its soldering temperature is adjustable between 260 to 550 with a temperature control accuracy of ±5. The soldering time is adjustable from 0 to 5 seconds with a control accuracy of 0.1 second. The soldering liquid can be detected and supplemented automatically.

Spindle motor adopts imported servo motor with high performance, spindle bearing adopts high-precision and high-speed imported bearing, and moving parts of three spindles adopt imported and high-precision screw rod

and linear bearing in order to ensure the repeated positioning accuracy of guide pin. All key components employ internationally renowned brand. Imported controller and human-computer interface are employed for control to facilitate parameter setting. Moreover, automatic fault alarm and fault point prompt ensure the winding quality.

型号 (Model)	HFRA1280
主轴数 (Spindle number)	8, 12, 16, 24
主轴转速 (Spindle speed)	标准 (Standard): 6000rpm MAX: 10000rpm
主轴间距 (Spindle interval)	30, 40, 50, 60, 70, 80, 100mm
绕线线径 (Wire diameter)	∅ 0.02~∅ 0.25mm (依主轴间距和转速而异)
控制系统 (Control system)	方式: 可编程控制器 (PLC), 工控机 (PC) (Mode: Programmable logic controller, industrial personal computer)
控制轴数 (Number of control spindle)	4 轴 (Four spindles)
主轴电机功率 (Spindle motor power)	11.8KW/2.9KW
电机总功率 (Total motor power)	3.0KW/4.5KW
电源 (Power supply)	380V, 50Hz, 三相五线制, 中国大陆标准电网 (380V, 50Hz, three-phase five-wire, standard power grid of Mainland China)
气源 (Air supply)	0.4-0.6MPa
最大回转直径 (Max. swing diameter)	∅ 25mm, ∅ 35mm, ∅ 45mm, ∅ 55mm, ∅ 65mm, ∅ 75mm, ∅ 90mm (依主轴间距而异) (variable according to spindle interval)
功能 (Function)	可集自动上料、自动插端子机、自动绕线、自动捻线、自动送料、自动沾锡、自动打弯、自动检测、自动下料、自动排版、张紧力自动调节、主轴转速连续可调、绕线圈数可调。(Automatic loading, automatic terminal plug-in, automatic winding, automatic twisting, automatic feeding, automatic soldering, automatic bending, automatic detecting, automatic unloading, automatic arranging, automatic tension adjustment, continuously adjustable spindle speed and adjustable number of turns.)