

低压电器系列全自动线圈生产线

Full-automatic Coil Production Line for Low-voltage Electric Appliances



Tesys D&Tesys E/HFXQX1280 全自动线圈生产线主要用于低压电器线圈产品的绕制，由自动绕线机、自动沾锡机、自动激光打标锁螺钉机、自动排版机四大模块组成，是集自动送料、自动绕线、自动沾锡、自动打弯、自动检测、自动激光打标、自动锁螺钉、自动下料、自动排版于一体的全自动线圈生产线。

Tesys D & Tesys E/HFXQX1280 full-automatic coil production line mainly applies to the winding of coil products for low-voltage electric appliances, combining four modules of automatic winding machine, automatic soldering machine, automatic laser marking & screws locking machine and automatic arranging machine. It is a full-automatic coil production line integrating automatic feeding, automatic winding, automatic soldering, automatic bending, automatic detecting, automatic laser marking, automatic screws locking, automatic unloading and automatic arranging.

全自动绕线机：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，采用一轴同步绕制双线圈结构，绕制过程平稳可靠，主轴标准转速 8,000rpm，最高转速可达 15,000rpm，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。

Full-automatic winding machine: The winding machine has a four-spindle linkage. The number of turns can be set precisely and the winding speed is automatically adjustable. The structure of paralleled twin-coil winding with one spindle is adopted, which enables a stable and reliable winding. The standard spindle speed is 8,000 rpm, while the maximum spindle speed is 15,000 rpm. For winding of wire with small diameter, twisting unit with adjustable number of strands, rotating speed and number of turns is optional.

全自动激光打标锁螺钉机：采用 8 工位转盘模式，自动与沾锡机联机生产，实现自动耐压、电阻检测，根据检测结果自动激光打标处理，自动完成带 V 型瓦片螺钉锁紧、自动下料等多种功能。

Full-automatic laser marking & screws locking machine: It adopts the eight-station rotating disk mode and automatically connects with the soldering machine to realize automatic withstanding voltage and resistance detecting, it automatically conducts laser marking, completes V-type tile screw locking, and unloads according to the detecting result.

全自动排版机：采用拨叉传送方式实现线圈的规则排版，通过电缸机械手实现线圈装盘。

Full-automatic arranging machine: It adopts the transmitting mode of shifting fork to make the coil be arranged orderly and sends the coil to the tray by cylinder manipulator.

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。

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 and soldering quality.

型号 (Model)	HFXQX1280
主轴数 (Spindle number)	12 (一轴双线圈绕制) (one spindle with double coil winding)
主轴转速 (Spindle speed)	标准 (Standard): 8,000rpm Max:15,000rpm
主轴间距 (Spindle interval)	80
绕线线径 (Wire diameter)	φ0.02~φ0.5mm (依主轴间距和转速而异) (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) 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)	4.0KW
电机总功率 (Total motor power)	8.0KW
电源 (Power supply)	380V (三相五线制), 50Hz 中国大陆标准电网 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)	φ75mm (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、张紧力自动调节、主轴转速连续可调、绕线圈数可调。 Automatic feeding, automatic winding, automatic soldering, automatic bending, automatic detecting, automatic unloading, automatic tension adjustment, continuously adjustable spindle speed and adjustable number of turns.