

半自动上漆系统 TLA 1-D23/202

Semiautomatic Varnishing System TLA 1-D23/202

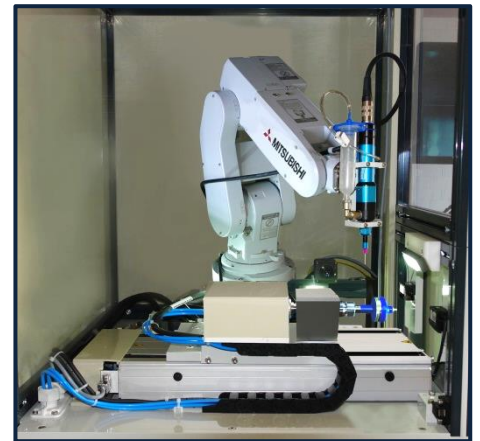
该半自动上漆系统 TLA 用于在铣刀（用于切割智能手机显示屏），磨棒和磨轮被电镀前绝缘上漆或保护层。

该系统配备一个可编程序控制器，一个用于编程和程序备份的终端操作触摸屏以及一个用于目视监控上漆的摄像头和显示屏。

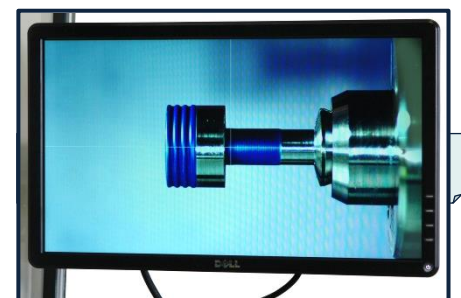
由一个六轴机器人引导的容积漆料配量系统实现了为复杂形状工件上绝缘漆。

The semiautomatic varnishing system TLA is for varnishing or masking prior to the electro-plating process of milling cutters for processing Smartphone displays, grinding pins and grinding wheels.

It is equipped with a PLC controller, a Touch screen operator terminal for programming and program backup, as well as a camera and monitor for visual control of the varnishing. The volumetric paint dosing guided by a 6-axes robot enables the system to apply masking also to work pieces with complex shapes.

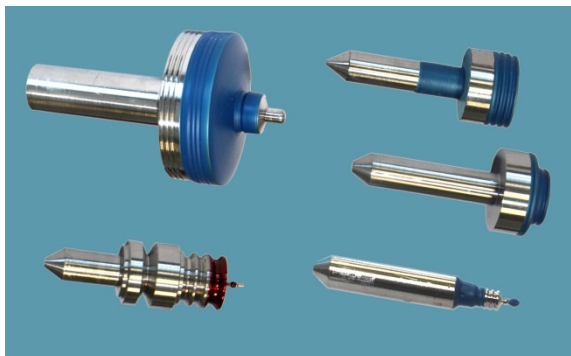


上漆装置，带 3 轴导轨与计量加料装置
Varnishing unit with three-axes linear guide
and volumetric paint dosing



上漆监控屏 Monitor to check
varnishing

注：所有视图均是示例。实际产品和图片有差别。
Note: All illustrations are examples.



上完绝缘漆后的智能手机切割铣刀毛坯
Masking varnished milling cutter blanks
for Smartphone displays



磨轮毛坯的绝缘漆 Masking varnishing of a grinding wheel blank.
上漆装置的自由定位功能可以为带有凹槽的复杂形状工件上漆 Free positioning
of the paint dispenser allows masking work pieces with complex shapes and
undercuts.

基本设备 Basic equipment

- 烤漆铝型材质的固定框架
Holding frame welded of aluminium profiles and baking enamelled
- 上漆装置的桌面由烤漆铝型材制成
Table surface for varnishing unit made of aluminium, baking enamelled
- 主轴承带有夹头的支撑夹具和气动夹紧装置
Headstock with collet holding fixture and pneumatic tension unit
- 为磨棒垂直表面上漆的6轴机器人
6-axes varnishing robot for varnishing also on vertical surfaces
- 带有步进电动机的X轴导引托架
Carriage guide for x-axis with step motor
- 主轴承的电动机，通过PLC可持续调速
Motor for headstock, rotation speed continuously adjustable by PLC.
- 用于精确配量的容积配量系统
Volumetric dosing system for precision application of varnish
- 主控制开关盒
Main control with switch box
- 可编程控制器调控 PLC-controller
版本: CPU模块Q系列 Version: CPU-module Q-series
输入/输出地址: 4096/8192 Input/output addresses: 4096/8192
储存媒介: 程序存储器120 kByte Storage media: Program memory 120 kByte
接口: USB 100BASE-TX Interfaces: USB 100BASE-TX
- 图像显示屏，触摸操作8.4寸65536色
Graphics Display: with touch operation 8,4" 65536 colours
液晶屏类型:TFT彩色LCD，分辨率: 640 x 480
LCD type:TFT Colour-LCD Resolution : 640 x 480
- 通过摄像头和19寸显示屏视控上漆
Visual control of varnishing by camera and 19" monitor
- 安全间，包括确保设备安全的挡光板
Safety housing incl. light barrier for machine safety



容积漆料配量系统
Volumetric varnish
dosing system

技术参数 Technical Data	
夹持直径 Clamping diameter:	1,6 / 2,35 / 3 / 4 / 5 / 6 / 8 / 10 毫米 1,6 / 2,35 / 3 / 4 / 5 / 6 / 8 / 10 mm (可应要求提供其他尺寸) (other diameters available on request)
夹持深度 Clamping depth:	至少4毫米 min. 4 mm
上漆范围 Varnishing range:	根据可自由编程的多轴机器人确定: x = 40毫米, y = 30毫米, z = 50毫米 Corresponding to freely programmable multi-axes robot: x = 40 mm, y = 30 mm, z = 50 mm
上漆能力: Varnishing capacity:	40-60秒每上漆区 40-60 sec/ varnishing sector
漆料类型 Varnish types:	用于电镀镍和化学镀镍的绝缘漆 Masking varnish for electrolytic and electroless nickel plating
注: Note:	所有提供的数据与操作员, 质量和毛坯的精度有关并可能因此产生差异 All information given depends on operator and quality and precision of blank, and may therefore vary.
程序存储器 Program memory:	根据上漆范围和硬盘容量大约2000个工具类型 appr. 2000 tool types depending on varnishing range and hard disk capacity
心轴转速 Mandrel speed:	最大 1000 转每分钟, 可持续调控 max. 1000 rpm., continuously adjustable
气压 Air pressure:	5...7 巴, 无油, 干燥 5 ... 7 bar, oil-free, dry
连接电源 Power connection:	230 伏, 50 赫兹 230 V, 50 Hz
设备规格: System dimensions:	长x 宽x 高约 1450 x 900 x 1570 毫米 L x W x H appr. 1450 x 900 x 1570 mm

可选性扩展 Optional expansions TLA 1-D23/202

- 电动手轮和设备电脑连接, 便于编程 Electronic hand wheel in connection to on-board PC for easier programming
- 激光辅助精密置零, 用于改进上漆效果
Laser-assisted precision zero-setting for better reproducible varnishing results
- 主轴承可扩大至直径为32毫米的夹头 Enlargement of head stock fixture up to collet Ø 32 mm
- 可更改电源接入值为120 伏, 60赫兹 Change of power ratings to 120 V, 60 Hz
- 漆料配量, 包括用于5, 10, 30, 55c 墨盒的压力调控阀
Varnish dosing incl. pressure-regulation valve for varnish cartridges 5, 10, 30 and 55 cc
- 磨轮的绝缘漆 Masking of grinding wheels:
 - a. 至最大直径100毫米 Up to max. Ø 100 mm
 - b. 至最大直径250毫米 Up to max. Ø 250 mm
 - c. 至最大直径350毫米 Up to max. Ø 350 mm