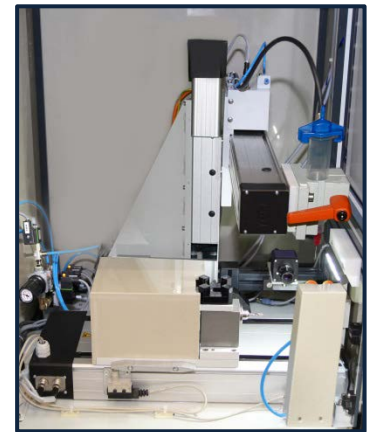


## 半自动上漆系统 TLA 1-D23/101

### Semi-Automatic Varnishing System TLA 1-D23/101

该半自动上漆系统 TLA 用于电镀前的绝缘上漆或保护涂层，以及金刚石牙钻（型号 FG-，H-和 RA）和磨棒的色环编码。该系统配有一个三轴导轨，一个摄像头和用于视控喷涂的显示屏，一个 PLC 控制器以及一个用于编程和程序备份的终端操作触摸屏。

The semiautomatic varnishing system serves for varnishing or masking prior to the electro-plating process as well as for marking with colour rings of diamond dental burrs (types FG, H and RA) and grinding pins. It is equipped with a three-axis linear guide, a camera and monitor for visual control of varnishing, a PLC controller and a Touch screen operators' terminal for programming and backup of programs.



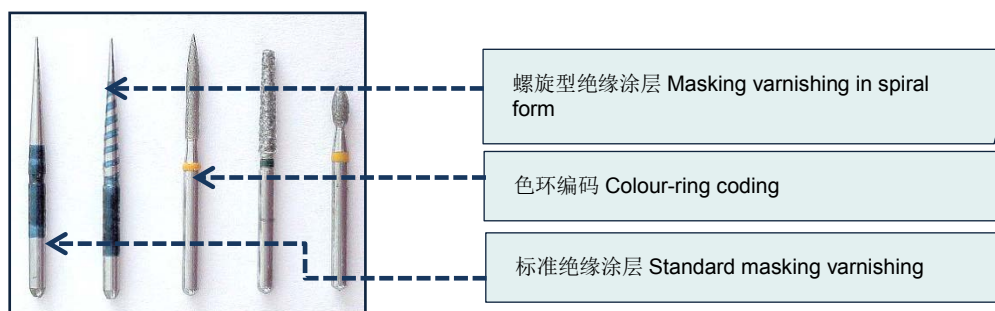
带有三轴导轨的上漆装置以及根据压力加药的上漆系统  
Varnishing unit with three-axes guide and pressure based varnish dosing system



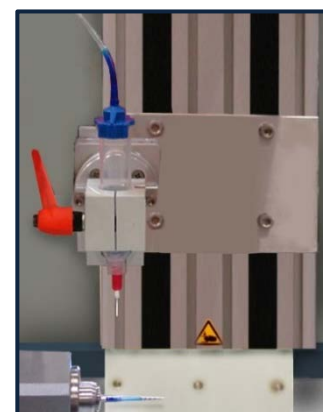
用于监控上漆的显示屏  
Monitor to check varnishing

注:所有图片均是示例，实际产品可能与图片有差别。  
Note: All illustrations are examples.

技术参数 Technical Data	
夹持直径 Clamping diameter:	1,6 / 2,35 / 3 / 4 / 5 / 6 / 8 / 10毫米(可应要求提供其他尺寸) 1,6 / 2,35 / 3 / 4 / 5 / 6 / 8 / 10 mm (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:	带有三个可自由编程的轴: 按照程序确定上漆区 With three freely programmable axes: varnishing zone according to program
上漆能力 Varnishing capacity:	上绝缘漆:约8 - 10个/分钟 (毛坯: FG;上漆区10毫米, 配量针直径0.25mm, ) 色环编码:约12 - 15个/分钟 (双组份漆料) <b>For masking:</b> appr.8 - 10 pcs/min. (Blank: FG; varnishing zone 10 mm, dosing needle Ø 0.25mm) <b>Colour-ring coding:</b> appr. 12 - 15 pcs/min (2-component varnish)
<b>注:</b> <b>Note:</b>	所有提供的数据与操作员, 毛坯的质量与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约有2000个牙钻类型 appr. 2000 dental burr types depending on varnishing range and hard disk capacity
心轴转速 Mandrel speed:	最大 1000 转每分钟 max. 1000 rpm
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 740 x 1450 毫米 L x W x H appr. 1450 x 740 x 1450 mm



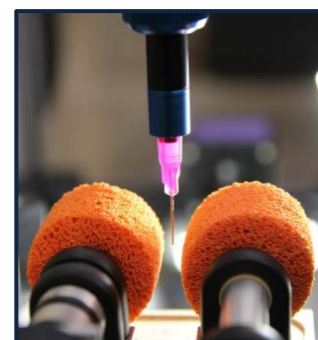
上漆示例 Examples of varnishing



根据压力加料的上漆系统  
Pressure based  
varnish dosing system

## 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
- 可自由编程的托架 Freely programmable carriage
- 带有步进电动机的X-Y-Z轴导引托架 Carriage guide for x-y-z-axes with step motor
- 主轴承的驱动电动机，通过PLC可持续调速  
Driving motor for headstock, continuously speed controlled by PLC.
- 主控制开关盒 Main control with switch box
- 可编程序控制器 PLC-controller  
版本: CPU模块Q系列  
输入/输出地址: 4096/8192  
储存媒介: 程序存储器 120 kByte  
接口: USB 100BASE-TX
- Version: CPU-module Q-series  
Input/output addresses: 4096/8192  
Storage media: Program memory 120 kByte  
Interfaces: USB 100BASE-TX
- 带有8.4寸的触摸屏画面显示，65536色  
液晶屏类型TFT彩色液晶显示屏，分辨率: 640 × 480  
Graphics Display: with touch operation 8,4" 65536 colours  
LCD type :TFT Colour-LCD, Resolution : 640 x 480
- 通过摄像头和19寸的显示屏视控上漆 Optical control of varnishing by camera and 19" monitor
- 安全围栏包括挡光板 Safety housing incl. light barrier for machine safety
- 漆料配量，包括用于5, 10, 30, 55cc 墨盒的压力调控阀  
Varnish dosing incl. pressure-regulation valve for varnish cartridges 5,10, 30 and 55 cc
- 加药针清洗装置 Cleaning installation for dosing needle



Cleaning installation for dosing needle  
加药针清洗装置

## 可选扩展项 TLA 1-D23/101 Optional expansions TLA 1-D23/101

- 连接设备电脑的电子手轮，更方便程序设置  
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
- 在TLA系统为实现自动化整合机器人时的准备包括轴的伺服电动机，运动控制器和伺服放大器。  
Prearrangement of the TLA for integrating a robot for automation incl. servomotors for axes, motion controller and servo amplifier
- 用于精确配量的容积配量系统 Volumetric dosing system for precision-dosing
- 为磨棒垂直表面上漆的6轴机器人  
6-axes varnishing robot for grinding points with vertical surfaces
- 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
- 可更改电流接入值为120 伏, 60 赫兹 Change of power ratings to 120 V, 60 Hz