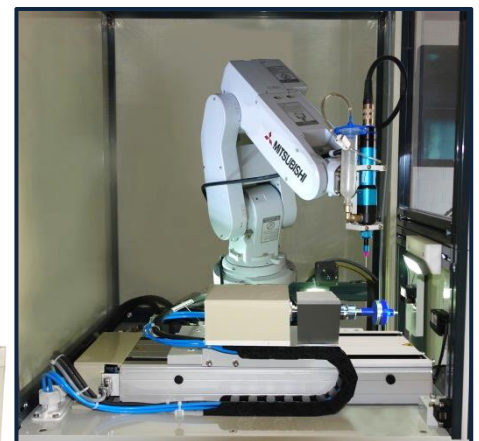
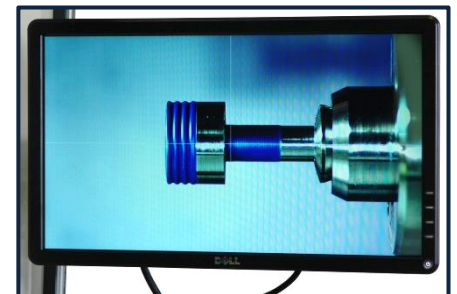


## Semiautomatic Varnishing System TLA 1-D23/202

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.



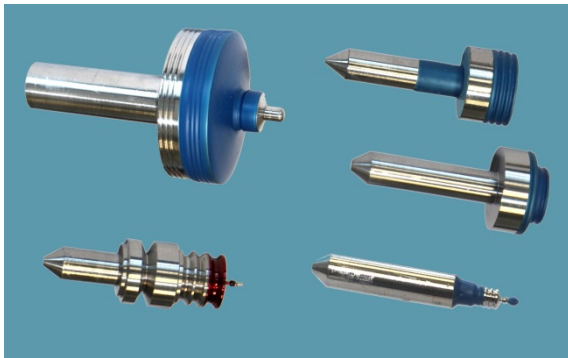
Varnishing unit with 6-axes robot and volumetric dosing system



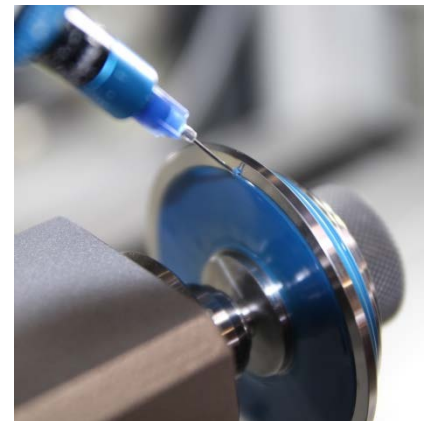
Monitor for visual check of varnishing

**Note:** All illustrations are examples.  
The product may vary from the illustrations.

Technical Data	
Clamping diameter:	1,6 / 2,35 / 3 / 4 / 5 / 6 / 8 / 10 mm (other diameters available on request)
Clamping depth:	min. 4 mm
Varnishing range:	Corresponding to freely programmable multi-axes robot: x = 40 mm, y = 30 mm, z = 50 mm
Varnishing capacity:	40-60 sec/ varnishing sector
Varnish types:	Masking varnish for electrolytic and electroless nickel plating
<b>Note:</b>	All information given depends on operator and quality and precision of blank, and may therefore vary.
Program memory:	appr. 2000 tool types depending on varnishing range and hard disk capacity
Mandrel speed:	max. 1000 rpm., continuously adjustable
Air pressure:	5 ... 7 bar, oil-free, dry
Power connection:	230 V, 50 Hz
System dimensions:	L x W x H appr. 1450 x 900 x 1570 mm



Masking varnished milling cutter blanks for Smartphone displays



Masking varnishing of a grinding wheel blank. Free positioning of the paint dispenser allows masking work pieces with complex shapes and undercuts.

## Basic equipment

- Holding frame welded of aluminium profiles and baking enamelled
- Table surface for varnishing unit made of aluminium, baking enamelled
- Headstock with collet holding fixture and pneumatic tension unit
- 6-axes varnishing robot for varnishing also on vertical surfaces
- Carriage guide for x-axis with step motor
- Motor for headstock, rotation speed continuously adjustable by PLC.
- Volumetric dosing system for precision application of varnish
- Main control with switch box
- PLC-controller
 

Version:	CPU-module Q-series
Input/output addresses:	4096/8192
Storage media:	Program memory 120 kByte
Interfaces:	USB 100BASE-TX
- Graphics Display: with touch operation 8,4" 65536 colours
- LCD type: TFT Colour-LCD Resolution : 640 x 480
- Visual control of varnishing by camera and 19" monitor
- Safety housing incl. light barrier for machine safety



Volumetric varnish dosing system

## Optional expansions TLA 1-D23/202

- Electronic hand wheel in connection to on-board PC for easier programming
- Laser-assisted precision zero-setting for better reproducible varnishing results
- Enlargement of head stock fixture up to collet Ø 32 mm
- Change of power ratings to 120 V, 60 Hz
- Varnish dosing incl. pressure-regulation valve for varnish cartridges 5, 10, 30 and 55 cc
- Masking of grinding wheels:
  - a. Up to max. Ø 100 mm
  - b. Up to max. Ø 250 mm
  - c. Up to max. Ø 350 mm