



# **VARIO- TOOL- GRINDER**



With the MATE tool grinder you regrind your punch press tooling according to your highest quality requirements.

With the for every tooling style specific tooling fixture, the tools are clamped to the high precision grinding table.

The MATE tooling fixtures allow to reproducing the correct shear geometry – shears and rooftop up to 12 degrees angle.

With the MATE fixtures many different tooling styles can be sharpened in the same grinding machine.

The zero-setting of the tool is accomplished via a laser beam system. The laser system is activated when the machine is in automatic grinding mode (optional).

The control panel with folio protected buttons and LCD screen is located on the right hand side of the totally enclosed working cabinet.

The feed rates and the grinding menu can easily be chosen on the touch screen.

The complete operating controls including the digital screen showing with feed rate and grinding data are placed in the control panel.

The compact overall size of the VARIO-TOOL-GRINDER makes it possible to place the machine direct next to the punch press. This makes it easy for the punch press operator to regrind the tooling whenever he has spare time available.



### Handling instructions

- **dismount the tooling unit and fix the tool in the VARIO-TOOL-GRINDER**
- **Check position of the punches with shear so that correct shear geometry can be reproduced.**
- **Tighten the tool in the grinding fixture**
- **Close the front cover window**
- **Detect zero level of the tool and activate start button**
- **A flashing light on top of the VARIO-TOOL-GRINDER indicates that the grinding cycle is finished**
- **Depending on the feed rate the grinding cycle takes between 2 -5 minutes for a perfect re sharpening of a punch press tool.**





All fixtures are based on a bayonet system which guarantees quick and easy fastening of punch press tooling without any additional mounting tools.

Fixtures for almost all types of punch press tooling styles can be delivered according to manufacturer's specification. Several fixtures for the most common punch press tooling styles are available from stock.

### Amada, Finn-Power, Euromac, and other TT tooling

The tooling fixtures consist of the 3 fixture palettes. One palette which clamps all dies via an excenter and two stud bolts. All punches for ex. in TT station A and B are clamped in a sleeve of one palette and punches C – E are clamped on another palette by using the M12 thread in the punch body.

The ground fixture has an included scale which is easy to set the punch in any angle between 0 and 12 degrees. This feature makes it convenient to reproduce the proper shear geometry of the punch (one way or roof top shear).



### System Trumpf

The tooling fixture consists of one clamping palette for dies which also is used for all punches without shear.

The second palette includes a sinus tilt in order to accomplish an easy adjustment for grinding rooftop, one-way and diagonal shear geometry on the punches.

The dies are on the die palette clamped via a fixture screw against two stud bolts.

The punches are mounted in a sleeve via a clamping screw with or without alignment ring.

For reproducing shear geometry on the punch face – the punches are mounted in a sleeve with or without alignment ring and clamped on the sinus tilt.

# VARIO-TOOL-GRINDER

## Technical Data

Connect load	4 kVA
Grinding motor	3,3 kW 400 V / 50 Hz 2850 rpm
Feed motor	2 phases stepping motor
Table drive	0,37 kW, 30 rpm Worm gear motor
Coolant pump	0,16 kW, 50 l/min
Coolant tank	35 l
Grinding wheel CBN	ø 200 mm
Minimum punch diameter	0,6 mm
Maximum tool diameter	320 mm
Maximum grinding height	300 mm
Feed rate	0,005 mm to 6,0 mm
Grinding speed	0,15 mm/min
Noise level	67 dB (A)
Required space	ca. 800 x 700 x 1800 mm
Weight	350 kg



[www.mate.com](http://www.mate.com)

## MATE PRECISION TOOLING

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