



## POLISHING MACHINES

MACHINES FOR

rough polishing | final polishing

## CONTENT

### MACHINES

<b>DOUBLE SHAFT POLISHING MACHINES</b>	<b>4-15</b>
Series DWP/PS1000	6-9
Series DWP	10-13
Series PC	14-15
<b>SINGLE SHAFT POLISHING MACHINES</b>	<b>16-17</b>
Series EB and EWP	
<b>CHAMFER POLISHING MACHINES</b>	<b>18-19</b>
Series FPV	
<b>REQUEST FOR QUOTATION</b>	<b>20</b>
Questionnaire for technical data	

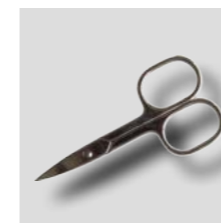
## DOUBLE SHAFT POLISHING MACHINES

POLISHING MACHINES FOR SINGLE WORKPIECES

### POLISHING OF WORKPIECES ON BOTH SIDES

Double shaft polishing machines of different series are designed for rough and final polishing of workpieces.

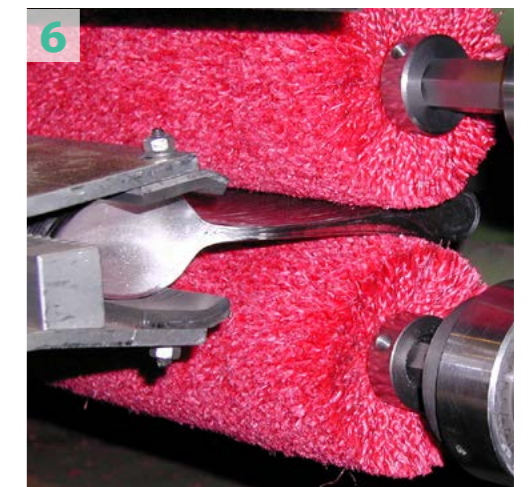
Some series are equipped with CNC technology.



- PLC control for setting the machine (paths, distance, speed etc.)
- max. machining length 1 000 mm
- infinitely variable speed controlled polishing roller drives
- polishing paste shot control
- automatic correction of polishing roller wear
- load-dependent corrected roller contact pressure
- integration of 360° swivel tools for the machining of rotary workpieces

#### Examples of use (pictures)

1. Double shaft polishing machine of the PS1000 series (picture 1)
2. Rough and final polishing of professional knife blades (picture 2)
3. Handle processing 360° (picture 3)



4. Rough and final polishing of silverware bowls (picture 4)
5. Rough and final polishing of scissors (picture 5)
6. Polishing of the outer edge of silverware (picture 6)

## DOUBLE SHAFT POLISHING MACHINES DWP/PS1000

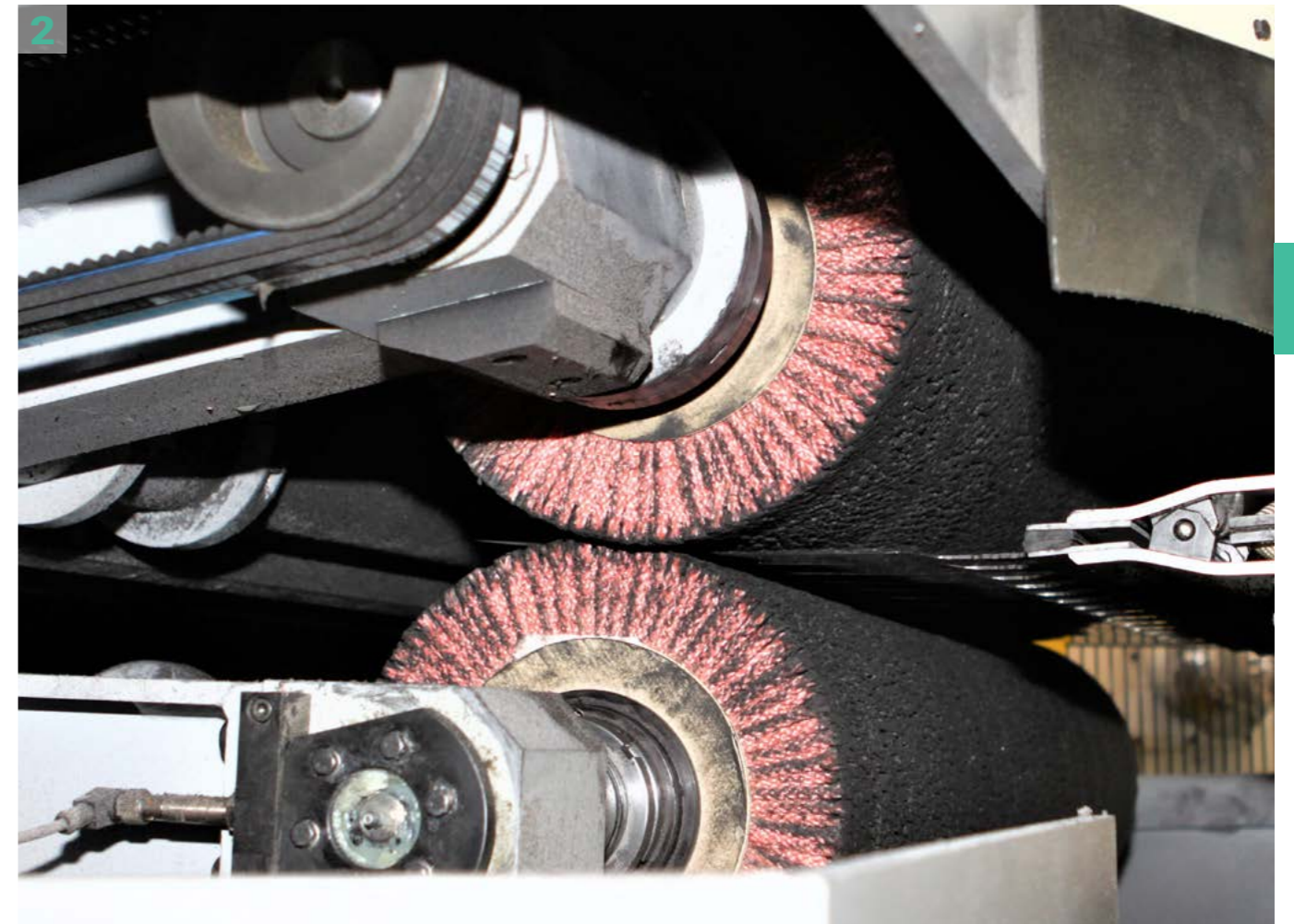
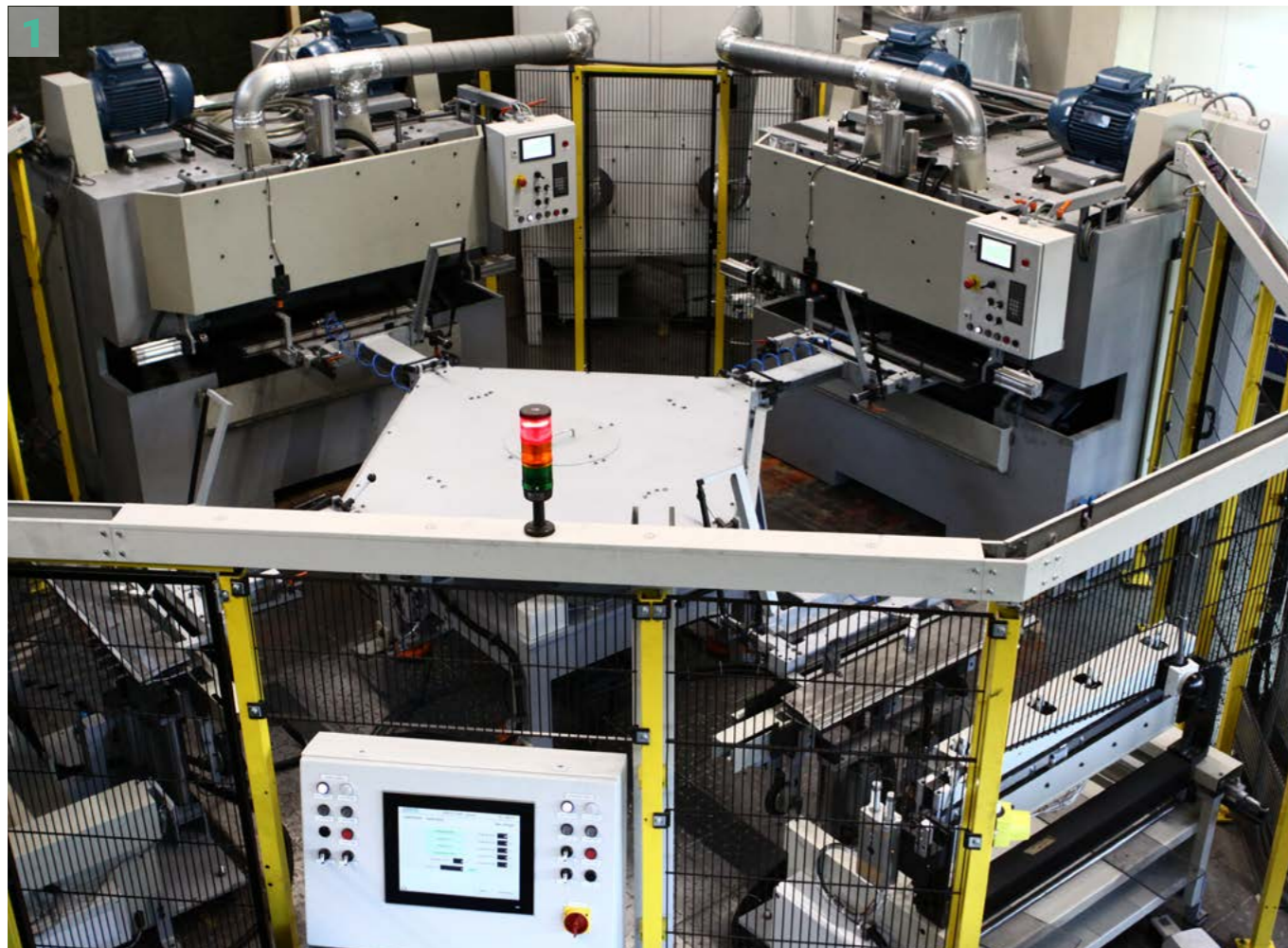
### Rough and final polishing of professional knives

A processing cell with four processing stations, a rotary table and a loading and unloading station was assembled for the rough and mirror polishing of professional knives.

The rotary table is equipped with four rotary collets.

The CNC-controlled double-shaft polishing machine of the PS series is equipped with a control system in which all process parameters are programmed in a user-friendly manner and stored depending on the workpiece.

Thanks to a short changeover time of a few minutes, the machine can also produce small batches.



- infinitely variable speed polishing roll drives
- polishing paste shot control
- automatic correction of polishing roll wear
- load-dependent corrected roller contact pressure
- recording and output of production data on integrated or external printer or directly to the work preparation department
- demonstration programs
- working width: approx. 1 000 mm
- working shaft trim: 55–230 mm
- long stroke (upper/lower shaft): 0–300 mm each
- cross stroke (upper/lower shaft): 0–60 mm each
- width across flats of hexagonal working shafts to accommodate polishing wheels: 12–32 mm
- polishing roll drive upper/lower shaft each: 11–15 kW
- movement of the long and cross stroke axes: hydraulic



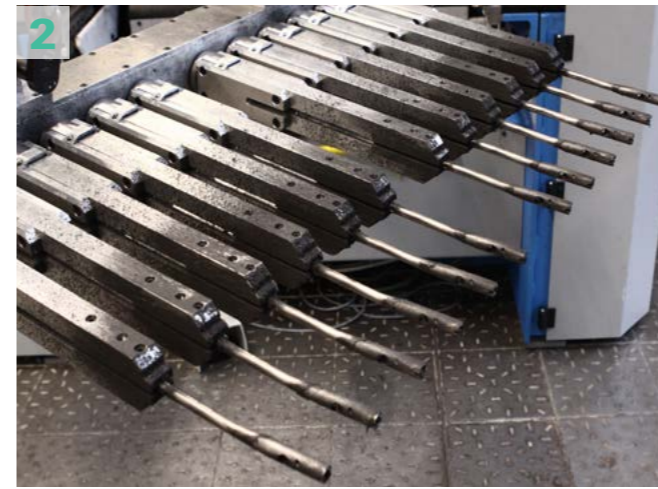
### Examples of use (pictures)

1. Processing cell for polishing professional knives with four double shaft polishing stations and one rotary table (picture 1)
2. Rough and final polishing of professional knives (picture 2)
3. Loading and unloading station (picture 3)

## DOUBLE SHAFT POLISHING MACHINES DWP/PS1000

Rough and final polishing of surgical workpieces

The PS CNC controlled double shaft polishing machine is designed for polishing bone nails, bone plates, scissors and similarly shaped workpieces.



The machine is equipped with a control system in which all process parameters are programmed in a user-friendly manner and stored depending on the workpiece.

Thanks to the short changeover time of a few



minutes, the machine can also produce small batches economically.



- PLC control for setting the machine (paths, distance, speed, etc.)
- max. Machining length 1,000 mm
- infinitely variable speed polishing roll drives
- polishing paste shot control
- automatic correction of polishing roll wear
- load-dependent corrected roll contact pressure
- integration of 360° swivel tools for processing rotary workpieces

### Examples of use (picture)

1. Double shaft polishing machine of the PS1000 series for rough and final polishing of bone plates (picture 1)
2. Collet chuck 360° rotatable with workpieces (picture 2)
3. Collet chuck with polished workpieces (picture 3)
4. Rough and final polishing of bone plates (picture 4)
5. Polishing of surgical scissors (picture 5)

## DOUBLE SHAFT POLISHING MACHINES

### DWP

#### Rough and final polishing of spoons and forks

The double shaft polishing machines of the DWP series are designed for rough and final polishing of spoons and forks, with each model performing a specific task in the production chain.

#### DWP/1S

The double shaft polishing machine type DWP/1S is designed for rough and final polishing of cutlery bowls on both sides.

- pressure pad for perfect machining of the bowl top

- perfect machining of the spoon edges thanks to a pneumatically swiveling clamping tool
- shaft contact pressure by pneumatic cylinder (three different contact pressures selectable)
- upper polishing shaft swiveled forwards and backwards manually
- movement of long and cross stroke by hydraulics or electro-mechanical gear motor

#### DWP/VS

The double shaft polishing machine type DWP/VS is used for rough and final polishing of the transition between bowl and handle.



- working width 1,000 mm
- clamping and exchange table
- different tongs for the machining of bowl and handle
- perfect machining of the top of the bowl due a pressure pad in DWP/1S
- compound slide rest on maintenance-free idle pulley
- upper polishing shaft balanced by a counter weight

- integration of automatic polish feed and polish shot interval
- DWP/1S, DWP/VS, DWP/2S and EWP/1S usable as single machines

#### Examples of use (pictures)

1. Polishing line of the series DWP (picture 1)
2. DWP/1S: polishing of cutlery bowls (picture 2)
3. DWP/V: rough and final polishing of the transition between bowl and handle (picture 3)
4. DWP/2S: spoon and fork handle machining (picture 4)

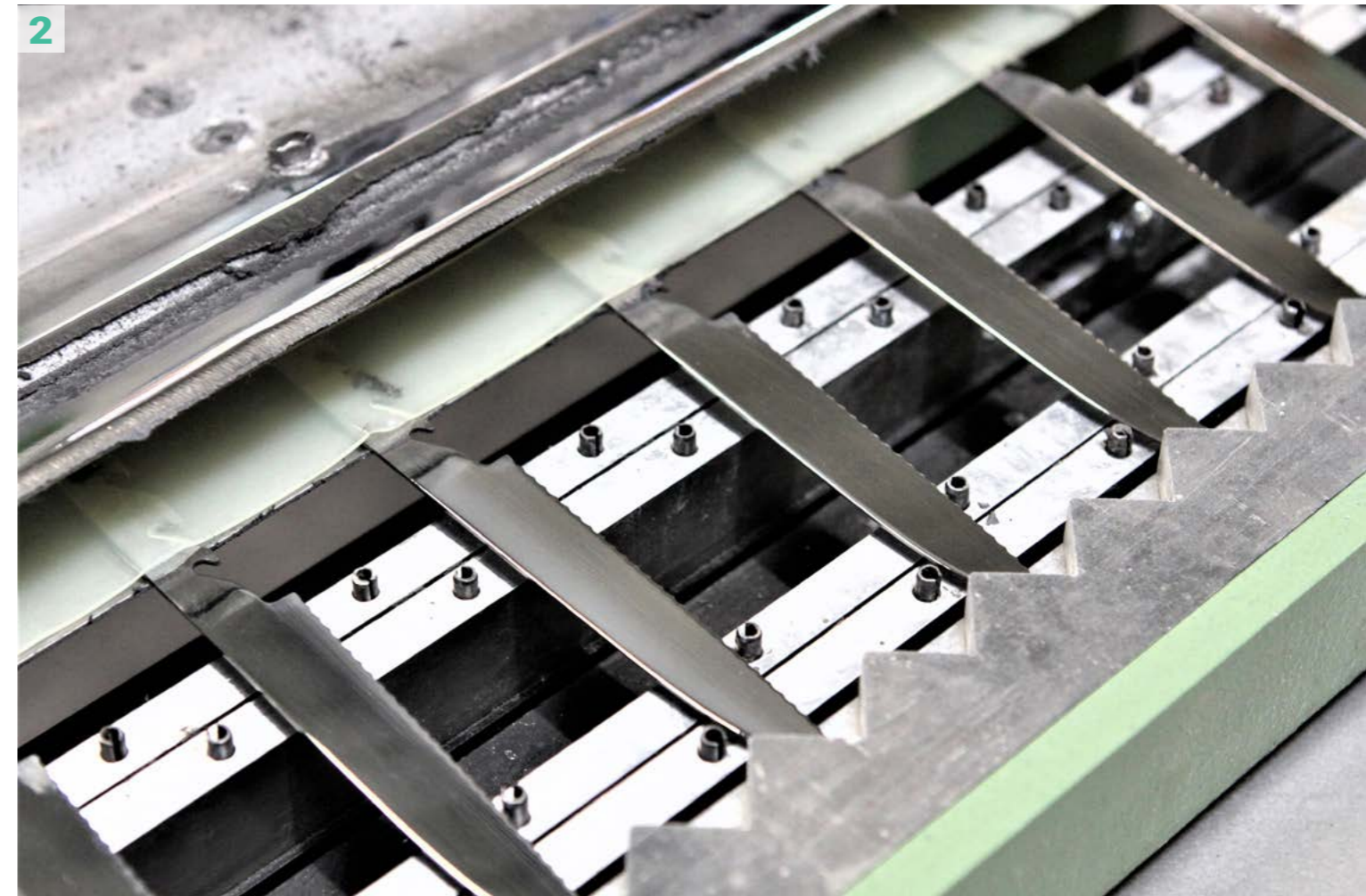
## DOUBLE SHAFT POLISHING MACHINES

### DWP

Polishing of cutlery and kitchen knives

The DWP/2S and DWP/2M series are designed for rough and final polishing of professional and cutlery knives.

(For CNC-controlled processing of professional knives, see also p. 6-7).



#### DWP/2M

Polishing of knife handles at monoblock knives, mounted knives and hollow handles

- swiveling up to 110° in connection with oscillating tools
- complete processing of the whole knife handle due to the knife handle end machining device
- cross table with maintenance-free idlers for feeding the pieces to the polishing rolls
- application of polishing emulsion required for machining the knife handles by high pressure spray guns
- simple operation due to easy handling of the electric control



#### DWP/2S

The double shaft polishing machine type DWP/2S polishes both sides of forks, knife blades and similar workpieces.

- clean machining of the knife blade transition to the bolster during final polishing due to the alternate shaft rotation
- cross-table with maintenance-free idlers conceived for feeding the workpieces to the polishing rolls

#### Examples of use (pictures)

- 1 Double shaft polishing machine of the series DWP/2M (picture 1)
- 2 Polishing of kitchen knives (picture 2)

## DOUBLE SHAFT POLISHING MACHINES PC

### Rough and final polishing of knife blades up to 650 mm length

The CNC controlled double shaft polishing machine of the series PC is designed for rough and final polishing of knife blades up to a length of 650 mm.

Due to the innovative conception of automation it is possible to run in continuous process or to use separate fixtures.



- working width of 1,000 mm
- movement of the polishing machine CNC controlled
- continuous feeding of the workpieces
- use of polishing wheels with a diameter of up to 300 mm
- integration of a linear chain conveyor containing five clamping tongs

### Examples of use (pictures)

1. Rough and final polishing of knife blades (picture 1)
2. CNC controlled double shaft polishing machine of the series PC1000 (picture 2)
3. Loading with clamping frame (picture 3)



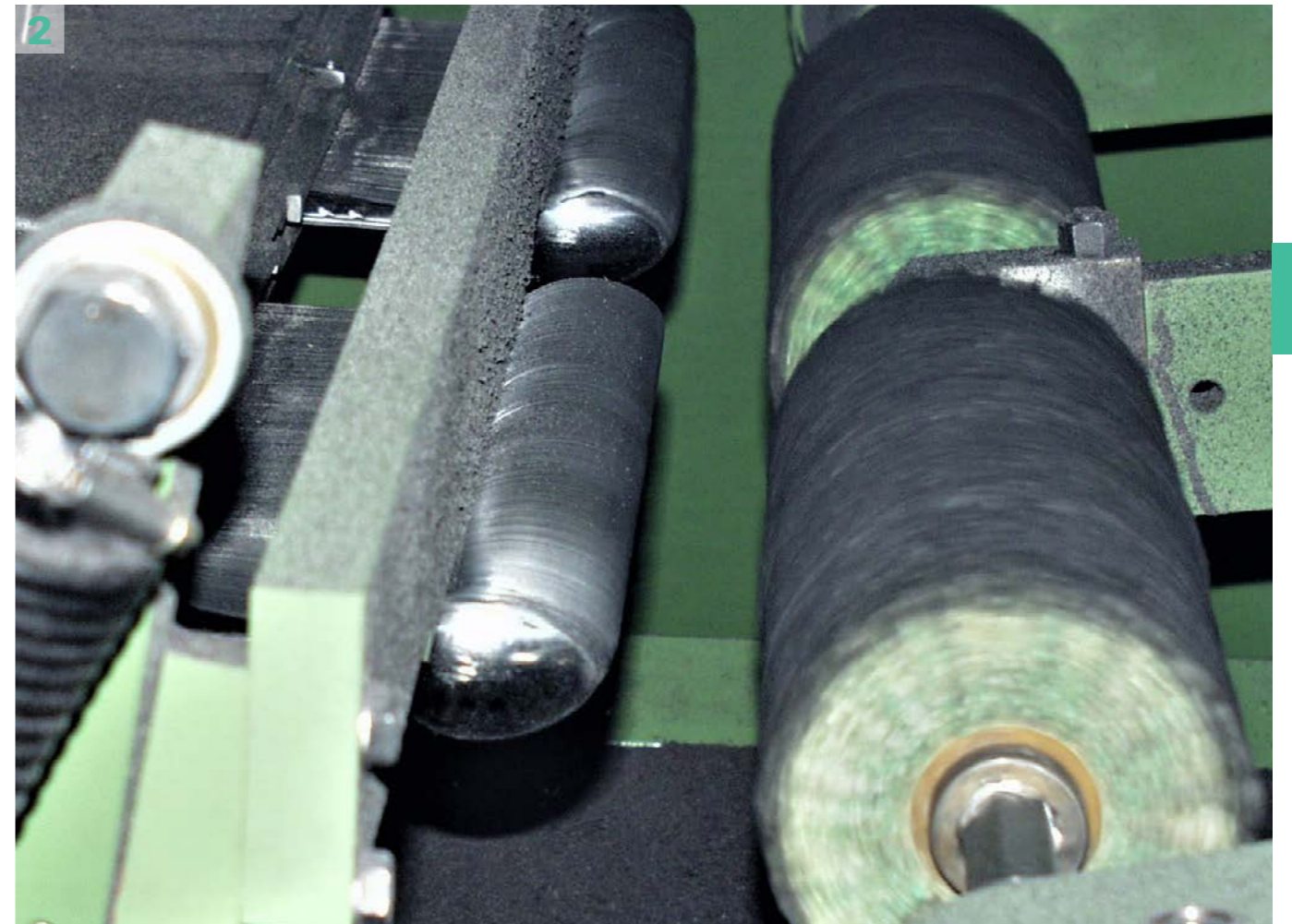
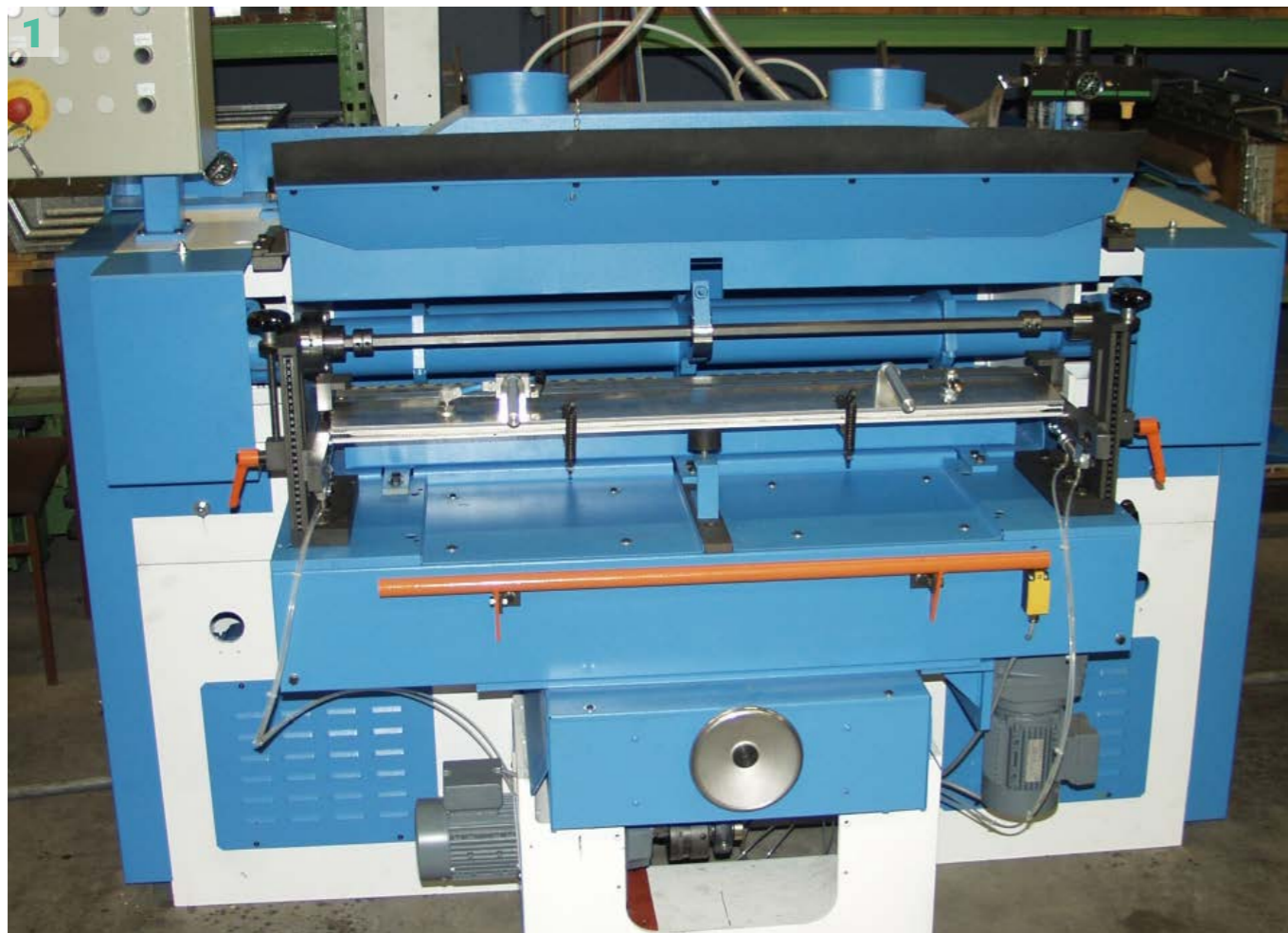


## SINGLE SHAFT POLISHING MACHINES

### POLISHING MACHINES FOR SINGLE WORKPIECES

#### POLISHING OF WORKPIECES ON ONE SIDE

Single shaft polishing machines are designed for one-sided rough and final polishing of workpieces. They can be combined with double shaft polishing machines to form a polishing line.



#### EB: Polishing of the outer edge – end machining

The single shaft polishing machine of the series EB is an end facing machine. Depending on its configuration, it can be used for rough or final polishing of spoons, forks or similar items.

- machining in two clampings
- first-rate results
- shortened processing times
- reduction of the polish roll wear due to an exact scanning of the workpiece shape



#### EB600:

- working width: 600 mm
- main drive: 7,5 kW
- weight: 3,400 kg

#### EB1000:

- working width: 1,000 mm
- main drive: 11 kW
- weight: 3,600 kg

#### EWP: Rough and final polishing of spoons and forks

The automatic single shaft polishing machine of the series EWP machines the inner and outer side of cutlery bowls.

- elimination of distortion marks at difficult bowls
- bowls swiveled on work roll by rotatable piece holder
- first-class machining result at the deep area and at the edges of the bowls due to the swivel movement of the piece holder with changing rotating direction of the machine

#### Examples of use (pictures)

1. Single shaft polishing machine of the series EWP (picture 1)
2. Polishing of the outer edge of cutlery parts with single shaft polishing machine of the series EB (picture 2)

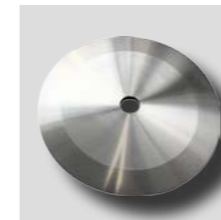
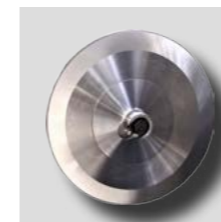
## CHAMFER POLISHING MACHINES

### POLISHING MACHINES FOR SINGLE WORKPIECES

#### POLISHING OF CIRCULAR KNIVES

FVP: Polishing of the pre-ground cutting edges on circular knives

The polishing machine of the series FPV is designed for sharpening and polishing the cutting edges of circular knives.

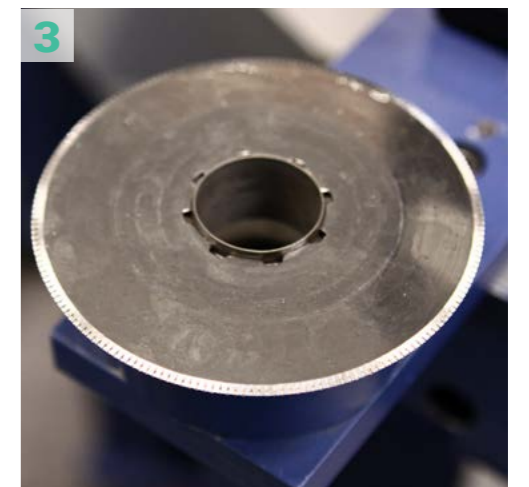


The machine can be combined with grinding machines such as a rotary table grinding machine of the series VR0, which makes sunray grinding on the cutting edge of circular knives.

- polishing wheel diameter 270 mm
- two motors 1.5 PS/2.800 rpm
- manual adjustment of wheel wear
- automatic concentricity of the circular knife adjustable continuously

#### Examples of use (pictures)

1. Chamfer polishing machine FPV (picture 1)
2. Machining line for circular knives consisting of a polishing machine of the series FPV and a rotary table grinding machine of the series VR0 for chamfer grinding of circular knives (picture 2)
3. Polieren der Schneide von vorgeschliffenen Rundmessern (Bild 3)



Company	_____
Contact	_____
E-Mail	_____
Phone/Fax	_____

<b>Workpiece</b>	Workpiece Quantity Lot size Number of models Sample Drawing
<b>Processing</b>	Rough and final polishing – on both sides Rough and final polishing – on one side Chamfer polishing
<b>Machine</b>	Autom. loading and unloading Autonomy, capacity magazine Connection Enclosure Protective fence Voltage Inbetriebnahme Transport                      yes                      no Warranty extension

Please send the questionnaire to [sales@bergergruppe.de](mailto:sales@bergergruppe.de).