

## PROFILE FLAT GRINDING MACHINE SMART 818 H/B-IV

SMART 818 H-IV / 818 B-IV Order no: 530042 / 530043



### ALL HIGHLIGHTS AT A GLANCE

- Premium flat grinding machine
- With 2 or 3 simultaneously CNC-controlled axes
- Cross table version
- Transverse travel covered by plate :  
8=224, 12=400, 16=500, 24=700 mm
- Longitudinal travel from: 460 - 2.000 mm
- Different grinding disks saved
- Dressing with automatic compensation
- Different grinding cycles: Flat grinding, cross grinding, plunge grinding, profile grinding linkable

Further information on the machine series and numerous accessories can be found on our website:  
<https://www.wagner-maschinen.de/en/grinding/profile-surface-grinding-machines>

## OTHER HIGHLIGHTS

- Longitudinal movement hydraulically (high cutting speed) or by the recirculating ball screw, like in the Z- and Y-axis
- H = 2-axis CNC, B = 3-axis CNC (crown grinding)
- Machine equipped with CNC control and „WOP“ (workshop-optimised programming)
- Spindle with 4 high-precision angular ball bearings and permanent lubrication system
- Hand-scraped guides Turcite counter-coated
- Cyclic CNC flat grinding machines
- 2 electronic handwheel for vertical and cross movement
- Grinding cycles: Flat grinding, cross grinding, plunge grinding, side grinding, contour grinding
- Profile dressing with the diamond roller mounted above the table, or the diamond roller mounted above the head
- Table: Cross slides, column, and bed made of honeycomb-ribbing-hardened cast iron
- Weight compensation in the vertical axis

## TECHNICAL DATA

### Table

- Table size 200 x 460 mm
- Grinding length max. 460 mm
- Grinding width max. (incl. disc) 220 mm
- Max. distance between table surface and spindle centre 457 mm
- Standard magnetic plate 200 x 450 mm
- Automatic table traverse path in the X-Axis (longitudinal) 490 mm
- Manual table traverse path in the X-axis (longitudinal) 500 mm
- Infinitely adjustable table speed 0.1-25 m/min.
- In Version (B) – option with CNC axis 0-20.000 mm/min.

### Transverse travel

- Rapid traverse 0-3 m/min
- Smallest enterable increment 0.001 mm
- Max. traverse path 220 mm

### Vertical traverse path

- Smallest enterable increment 0.001 mm
- Rapid traverse 0-3 m/min

### Spindle

- Spindle speed (infinitely variable), 1,000-7.000 rpm
- Motor power 3.0 kW
- Hydraulic motor 0.75 kw
- Transverse feed: AC servo motor 1.0 kW
- Vertical feed: AC servo motor 1.0 kW
- Max. table load 210 kg
- Standard grinding disk dimension diam. x width x hole 203 x 13 x 31.75 mm
- Installation surface (LxWxH) 2.555 x 2.092 x 2.100 mm
- Total connected load 11 KVA
- Net weight 1.210 kg

## STANDARD EQUIPMENT

- CNC cycle control over the PC with 10" colour screen and graphics
- Network, USB, flash card interfaces
- AC servo motor in the Y-axis with encoder
- AC servo motor in the Z-axis with encoder
- AC servo motor in the Y-axis with encoder (B Version)
- Indirect measuring system in the Y- and Z-axis over the encoder
- Complete hydraulic system
- Hardened and ground recirculating ball screw in the Y-axis
- Hardened and ground recirculating ball screw in the Z-axis
- Hardened and ground recirculating ball screw in the X-axis (B version)
- Electronic handwheel (MPG)
- Strong grinding spindle motor 3 kW
- Grinding spindle in sleeve design with 4 pre-tightened angular ball bearings, class 7 (P4)
- Weight compensation in the vertical axis (Y-axis causes long-time accuracy)
- Table guide in double-V version, hand-scraped and Turcite-B counter-coated (suitable for side grinding)
- Hydraulic system of the table longitudinal movement can be uncoupled for manual operations
- Vertical and transverse axis are equipped with recirculating ball screws, class C2
- Fully automated central lubrication
- Cross slide guide in double-V version, extremely wide and guided over the entire traverse path, in order to prevent an overhang
- High-quality cast iron construction with strong ribbing guarantees a high operational torsional rigidity and stability
- Positioning and repeat accuracy 0.002 mm
- Electrical equipment 400 V / 50 Hz

Further information on the machine series and numerous accessories can be found on our website:

<https://www.wagner-maschinen.de/en/grinding/profile-surface-grinding-machines>

We reserve the right to make design changes in the course of technical improvements. Illustrations, dimensions and weights are not binding.

## PROFILE FLAT GRINDING MACHINE SMART H/B-IV 1224 / 1640

SMART 1224 H-IV / 1224 B-IV Order no.: 530044 / 530046  
SMART 1640 H-IV / 1640 B-IV Order no.: 530045 / 530047



### ALL HIGHLIGHTS AT A GLANCE

- Premium flat grinding machine
- With 2 or 3 simultaneously CNC-controlled axes
- Cross table version
- Transverse travel covered by plate :  
8 = 224, 12 = 400, 16 = 500, 24 = 700 mm
- Longitudinal travel 460 - 2.000 mm
- Different grinding disks saved
- Dressing with automatic compensation
- Different grinding cycles: Flat grinding, Kreuzschleifen, Einstechschleifen sowie grinding linkable

Further information on the machine series and numerous accessories can be found on our website:  
<https://www.wagner-maschinen.de/en/grinding/profile-surface-grinding-machines>

## OTHER HIGHLIGHTS

- Machine equipped with CNC control and „WOP“ (workshop-optimised programming)
- H = 2 CNC axes (hydraulic longitudinal travel), B = 3 CNC axes (crown grinding)
- Grinding cycles: Flat grinding, cross grinding, plunge grinding (also multiple) as well as profile grinding
- Profile dressing with the diamond roller mounted on the table, or the diamond roller mounted above the head
- Longitudinal movement hydraulically (high cutting speed) or by the recirculating ball screw, like in the Z- and Y-axis
- Machine base and bed made of Meehanite cast iron with honeycomb ribbing.
- Spindle with 4 high-precision angular ball bearings and permanent lubrication system (vertical axis)
- Hardened and ground vertical guides, guides, Turcite-B counter-coated
- Spindle slide with weight compensation
- Table: Cross slides, column, and bed made of honeycomb-ribbing-hardened cast iron
- Table guide in double version, suitable for side grinding
- 2/3 electronic handwheels for vertical and cross movement with contour handwheel

## TECHNISCHE DATEN

### Table

- Table size 300 x 600 mm / 400 x 1,000 mm
- Grinding length max. 610 mm / 1,015 mm
- Grinding width max. (incl. disc) 350 mm / 450 mm
- Max. distance between table surface and spindle centre 620 mm
- Standard magnetic plate 300x600 mm / 400 x 1.000 mm
- Automatic table traverse path in the X-axis (longitudinal) 650 mm / 1.050 mm
- Manual table traverse path in the X-axis (longitudinal) 700 mm / 1.100 mm
- Hydraulically infinitely adjustable table speed 5-25 m/min.
- Version B – option with CNC axis 0-20.000 mm/min.

### Transverse travel

- Rapid traverse 0-3 m/min
- Smallest enterable increment 0.001 mm
- Max. traverse path 350 mm / 450 mm

### Vertical traverse path

- Smallest enterable increment 0.001 mm
- Rapid traverse 0-3 m/min Grinding disk
- Outer diameter 355 mm
- Width 50 mm

### Spindle

- Spindle speed 600-2,500 rpm  
Motor power 11 kW  
Max. table load 420 kg / 670 kg  
Standard grinding disk diam. x width x hole 355x50x127 mm
- Installation surface (LxWxH)  
2.776 x 2.672 x 2.085 mm  
3.893 x 2.876 x 2.085 mm
- Total connected load H/B 22 KVA
- Net weight 2,200 kg / 3,500 kg

## STANDARD EQUIPMENT

- Table full enclosure
- Mobile electronic handwheel for controlled axes
- Grinding disk
- Grinding disk flange
- Machine light
- Set of levelling screws with adjusting blocks
- Balancing arbour
- 1 toolbox with operating wrench
- Complete electrical equipment 400 V / 50 Hz

## SPECIAL EQUIPMENT

- Electromagnetic plate 600 x 300 mm and 1.000 x 400 mm
- Adjustable adhesive force and automatic demagnetisation
- Wet grinding unit with automatic fleece roller system
- Balancing scale with level
- Balancing scale with castors
- Dressing diamond adjustable in the angle
- 3-Sided dressing device (mounted laterally on the table)
- Automatically driven overhead-mounted diamond roller
- Hydraulic temperature control of the spindle
- Grinding disk flange with balancing weights

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