

# BBUN

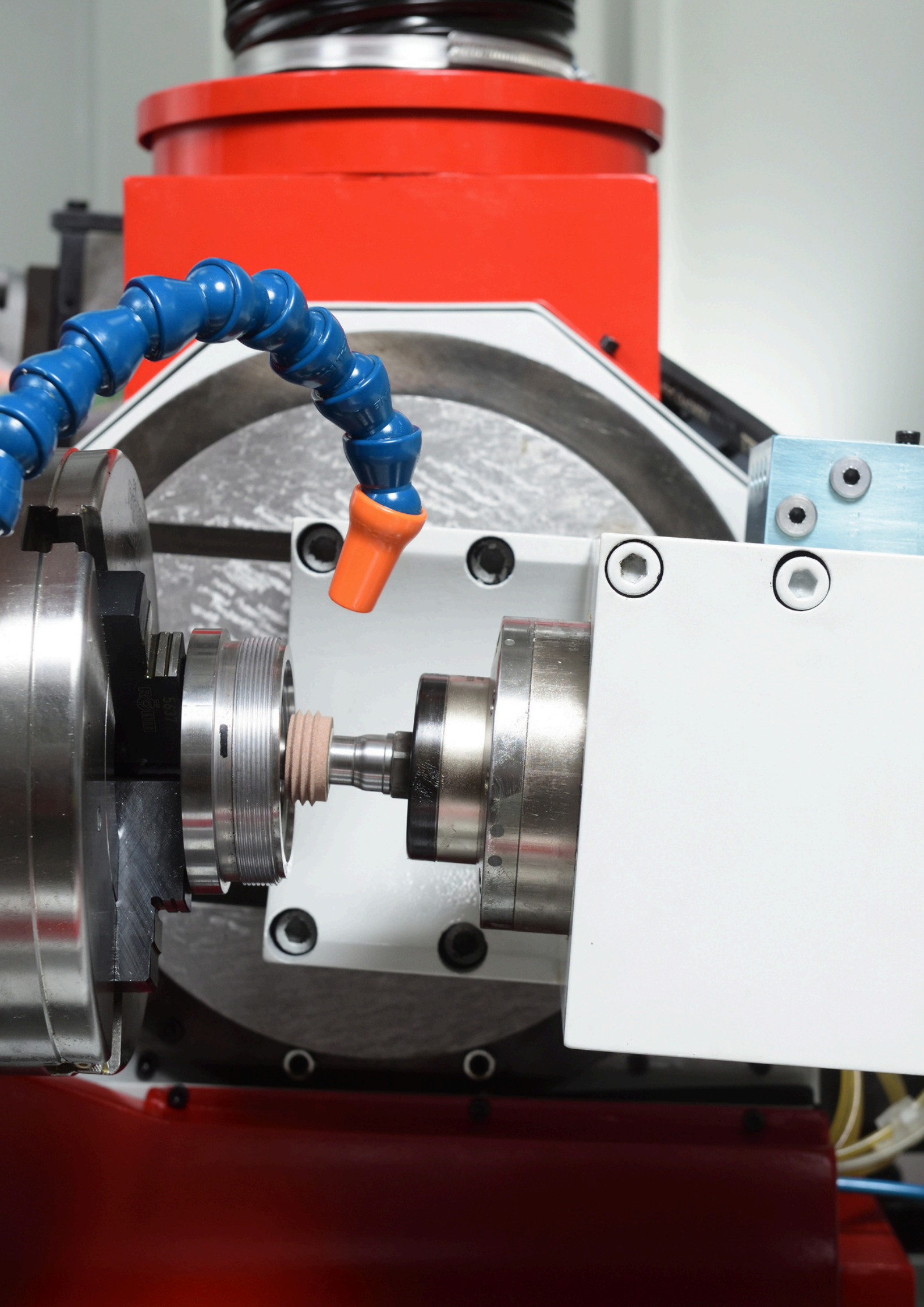
INTERNAL THREAD GRINDING MACHINE

BBUN 150

BBUN 300



**GRINDEX**



## **INTERNAL THREAD GRINDING MACHINES MODELS BBUN 150 and 300**

**Ideal for grinding from solid and internal thread grinding - all types of internal threads.**

**Thread diameter range  $\varnothing 3$  -  $\varnothing 200$  mm, length up to 120 mm.**

**CNC machine with standard workhead C-axis and wheelhead A-axis.**

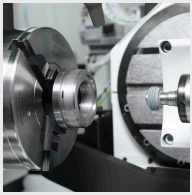
**CNC Siemens Sinumerik One control with Grindex software which enables easy set up with user friendly interface for workpiece programming through graphics and screens.**

**Tailored to the specific needs of every customer.**

**Complete machining with integrated B-axis which swivels automatically and enables use up to four grinding wheels.**

# BBUN

IDEAL FOR SINGLE AND SMALL-BATCH PRODUCTION



## SWING DIAMETER

- 270/450 mm
- Max. workpiece length 300 mm



## LOAD

- chucked up to 150 kg



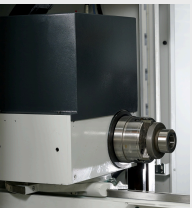
## THREAD DIMENSIONS

- length 60/120 mm
- diameter range  $\text{Ø}3 - \text{Ø}200$  mm



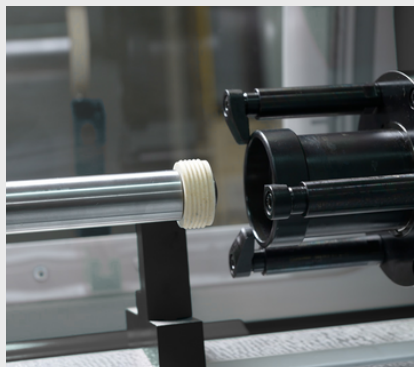
## PITCH RANGE

- 0,25-50 mm



## HIGH-PRECISION WORKHEAD C-AXIS

- Live and dead center base
- C-axis
- Workpiece rotation control with high-precision encoder
- Encoder resolution 0,001°
- Spindle speed is infinitely adjustable



## BASE

Machine base made of grey cast iron. Very massive, solid, specially ribbed, naturally aged ensures thermal stability for a long life and complete stability of the process.

Flat and "V" guideways hand scraped and coated with antifriction material to ensure continuous movement, high accuracy, positioning and repeatability.

## TABLE/SLIDE

X- and Z- slides driven by ball screw spindles and AC servo motors. High resolution linear scales to control the position of X- and Z- axes.

The option of X-axis travel driven by linear motor. Less wear and minimal maintenance. Extremely high accuracy, positioning and repeatability.

# BBUN

FOR GRINDING FROM SOLID AND INTERNAL THREAD GRINDING -  
ALL TYPES OF INTERNAL THREADS

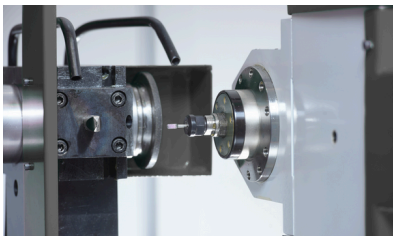


## B-AXIS

Turret wheelhead with continuous indexing function and with up to four grinding spindles enables external and internal thread, OD, ID, complex profile grinding to be performed in single clamping.

## WHEEL DRESSING

- Single point diamond
- Diamond roll/disc
- CNC wheel dresser
- Single or multi rib dressing

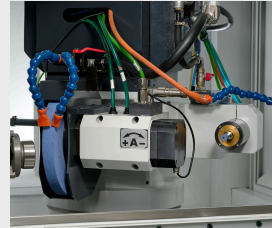


## A-AXIS

- Automatically swiveling A-axis for efficient thread grinding
- Swivel angle is  $\pm 40$  deg
- Max. two A-axes

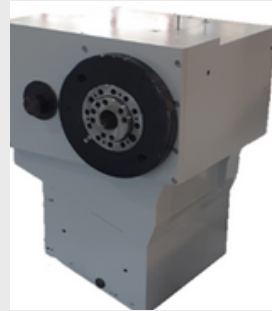
## AUTOMATIC WORKPIECE LOADING SYSTEM

Requirements of completely automated manufacturing processes are fulfilled with the incorporation of customised Grindex automatic loading systems e.g. integrated gantry or robot solutions or custom tailored systems. Grindex offers both internal and external loading systems.



## WHEELHEAD

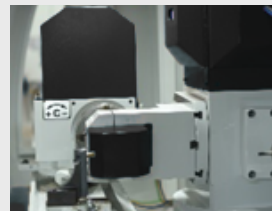
- A-axis
- B-axis for complete workpiece machining



## OPTIONS:

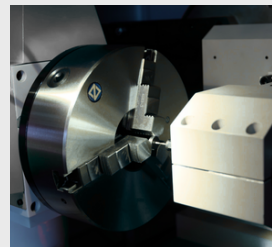
### WORKHEAD

- with hydrodynamic or hydrostatic bearings
- Pneumatic or hydraulic clamping
- Custom tooling for clamping



### WHEELHEAD

- Hydrodynamic, hydrostatic, hybrid ceramic bearing
- Ceramic, CBN, Diamond grinding wheel



### STEADY REST

- Fine adjustment steady rest ideal for follow down grinding
- Self-centering steady rest
- Commercial and Grindex steady rest



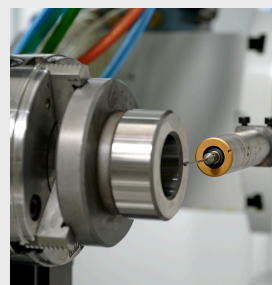
### CLAMPING SYSTEM

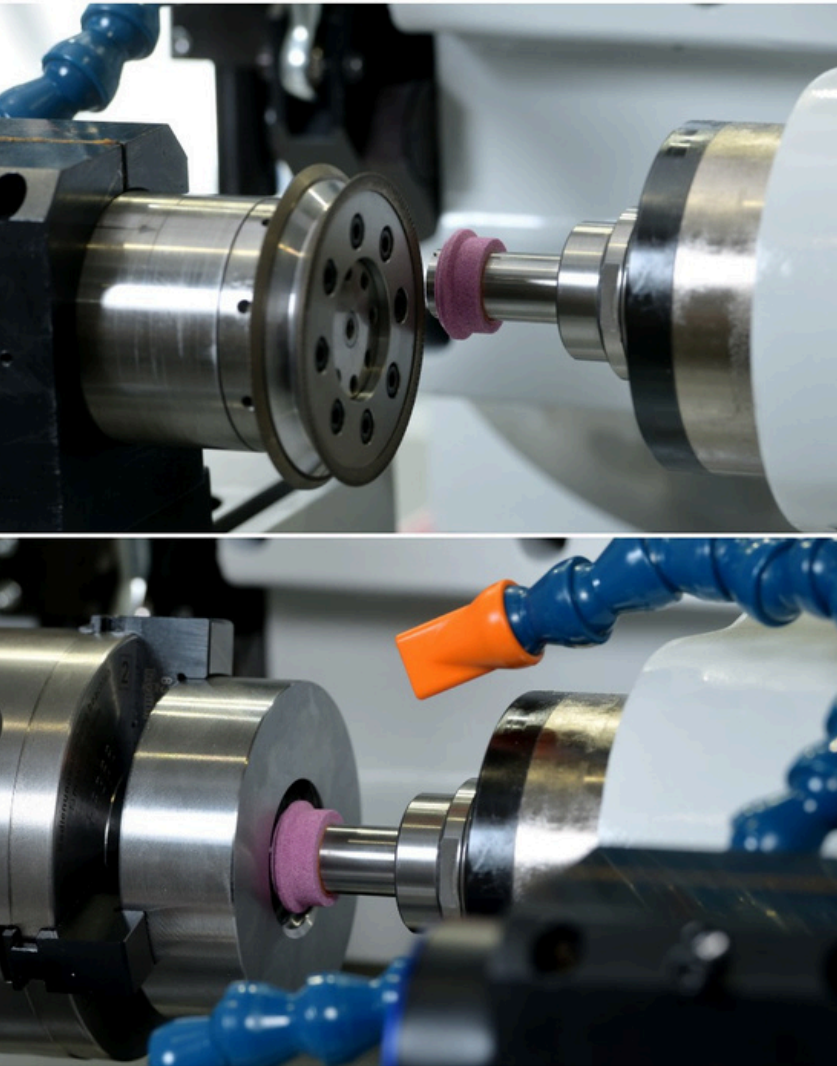
- Chuck, power actuated clamping system, collet chuck, custom tooling



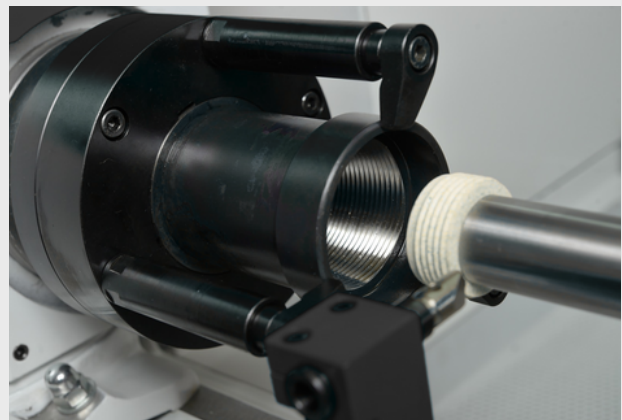
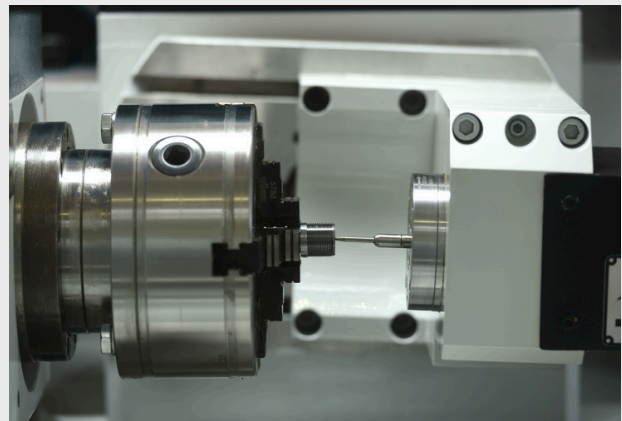
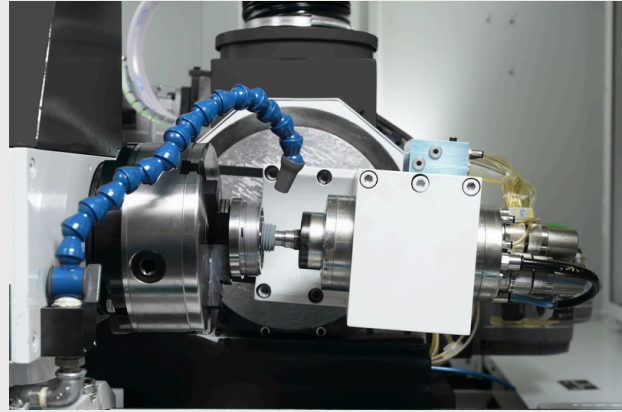
### GAUGING AND CONTROL

- Touch probe
- Gap-crash - gap, crash, dressing and position control for grinding wheel



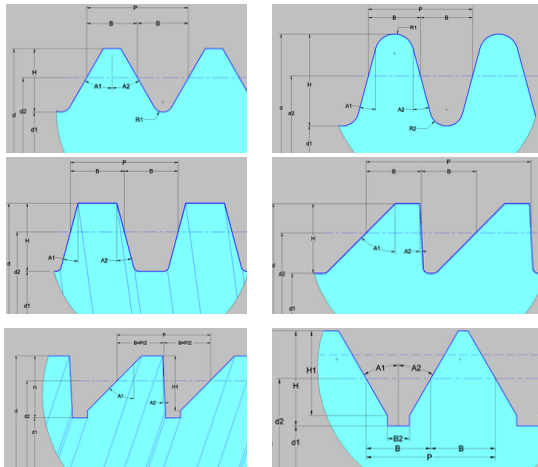


## MACHINING EXAMPLES



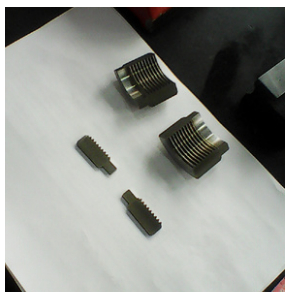
## THREAD TYPES

- Metric
- Withwort
- Trapezoidal
- Saw-tooth
- Round
- Screw
- Special



## GRINDING POSSIBILITIES

- constant and variable pitch grinding
- grinding of single and multi turn threads
- grinding of left and right threads
- thread pitch correction (by software)
- grinding od cylindrical and taper threads



# TECHNICAL DATA

Main data	BBUN 150	BBUN 300
· Swing diameter	270 mm	450 mm
· Workpiece length	150 mm	300 mm
· Thread diameter range	Ø3 - Ø80 mm	Ø20 - Ø200 mm
· Max. thread length	60 mm	120 mm
· Max. workpiece weight	15 kg	150 kg
· Pitch range	0,25-50 mm	
<b>Wheelslide X-axis</b>		
· Travel	400 mm	
· Max. speed	up to 10000 mm/min	
· Resolution	0,0001 mm	
<b>Work table Z-axis</b>		
· Travel	550 mm	1150 mm
· Max. speed	up to 10000 mm/min	
· Resolution	0,0001 mm	
<b>Wheelhead</b>		
· A-axis swiveling range	±40°	
· A-axis resolution	20"	
· Grinding spindle speed range	12000-120000 rpm	12000-90000 rpm
<b>B-axis</b>		
· Swivel range	-30° /+210 °	
· Resolution	1"	
<b>Diamond roll dresser</b>		
· Speed range	0-16000 rpm	
· Diamond roll diameter	60/80/100 mm	
<b>Workhead C-axis</b>		
· Rotation speed	0,1-800 rpm	0,1-400 rpm
· Motor power	11-28 Nm	
· Interface	A3DIN 55026/MT4	A6DIN 55026/MT5
· C-axis resolution	20"	
Controller	Siemens Sinumerik One	

# GRINDEX



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