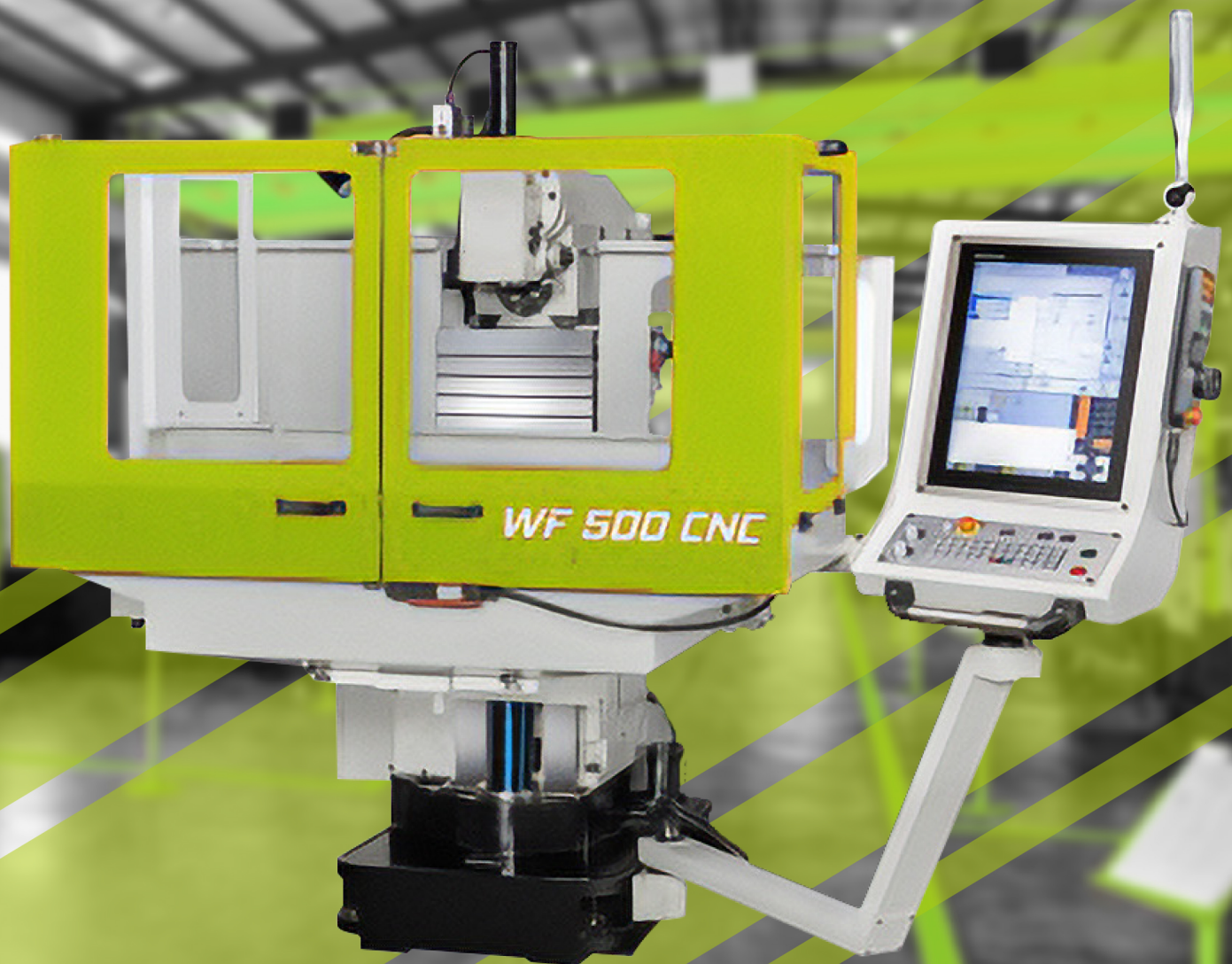


# TECHNICAL DATASHEET

## **WF 500 CNC**

*UNIVERSAL MILLING MACHINE*





## MAIN FEATURES

- **WF 500 CNC** can install with HEIDENHAIN TNC 620TP or SIEMENS 828D CNC controller system with accuracy. We installed SKF / NSK Hi-precision angular bearings for both vertical / horizontal spindles as well.
- **WF 500 CNC** according to the DIN 8615 standard as well.
- All major components such as the base, column, saddle, cross slide, angle table, working table and milling head body from stress-relieved MEEHANITE® quality cast (FC30), partly multiple ribbed for maximum stability and manufacturing accuracy from the very beginning.
- Working table. Angle table clamping surface are hardened and precision ground on all T-slots surface. Ensure the work-piece can be keeping the good accuracy before cutting.
- JAPAN made bevel gears and separately geared box to prolong the life for all gears and heating reducing.
- **WF 500 CNC** Hi/Low speed transmission 40 - 3.800 rpm with JAPAN made bevel gears and separately geared box to prolong the life for all gears and heating reducing.
- **WF 500 CNC** installed with the hydraulic clamping kit (DIN40/69871) onto both of vertical spindle and horizontal spindle as standard.
- Vertical milling head with spindle taper DIN-40, spindle stroke is 80 mm, quill diameter is Ø 95 mm with hardened and grinding surface. Swivel 90° on both right & left.
- C3 Hi-precision ball screw on X/Y/Z axes as standard.
- Rapid traverse in X/Y/Z axes 5.000 mm/min.
- Backlash-free precision ball screws for forceful movements in all axes and outstanding results during climb.
- All guide ways are hardened, honed and additionally Turcite®-B coated for optimum and constant movement.
- Z axis servo motor with brake and ball screw preload protection - for quick and safe spindle stop.
- Optional instalation of the export coolant tank (40L) and coolant pump.



- 4 steps of geared box to build inside of the slide assembly directly, to using the air pressure levels to change the spindle speeds by automatically.

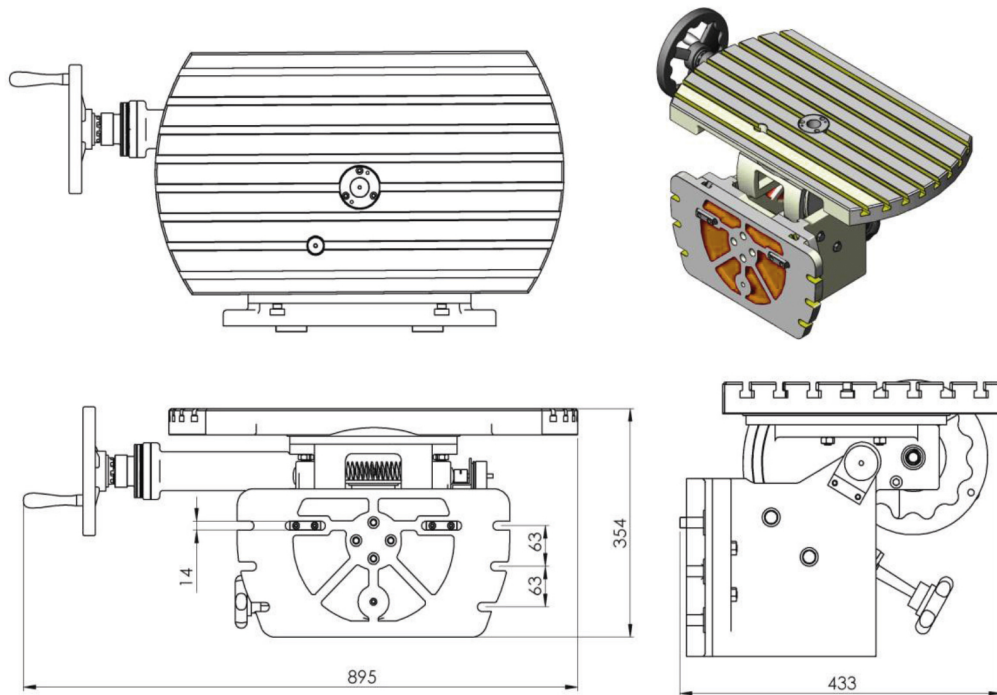


\*Specifications above are subject to change without notice, no liability for printing errors. The machine can be shown with optional equipment.

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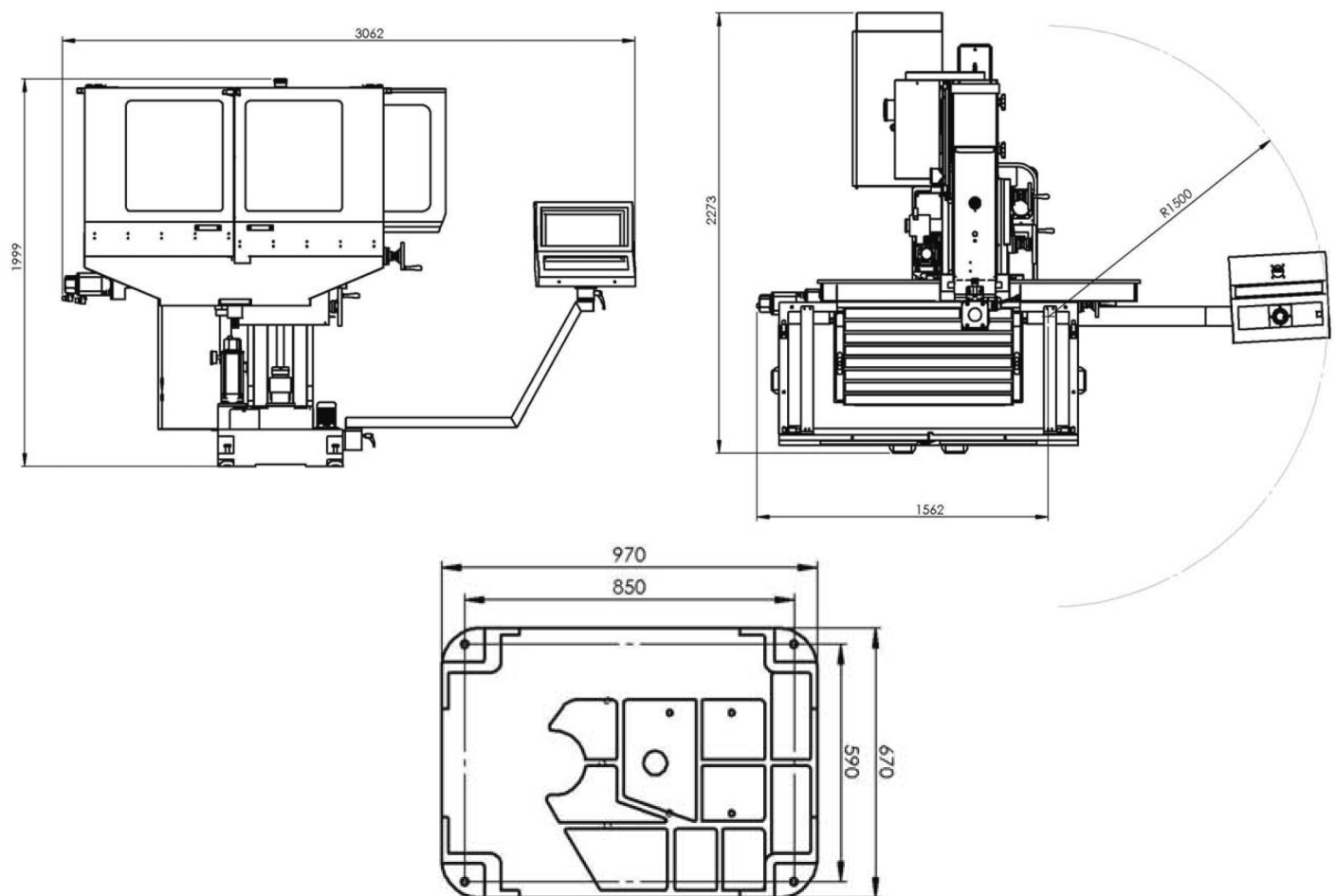


## OPTIONAL ACCESSORIES



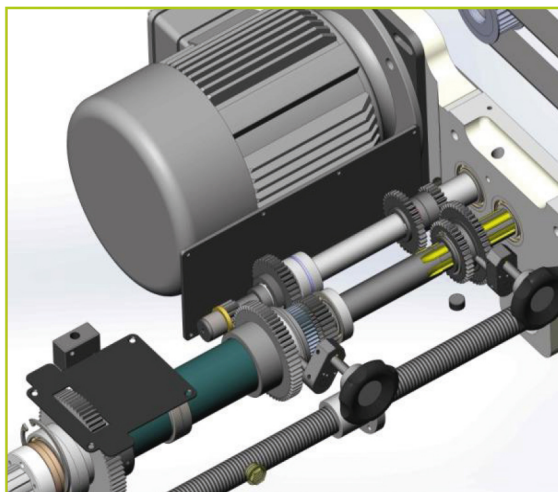
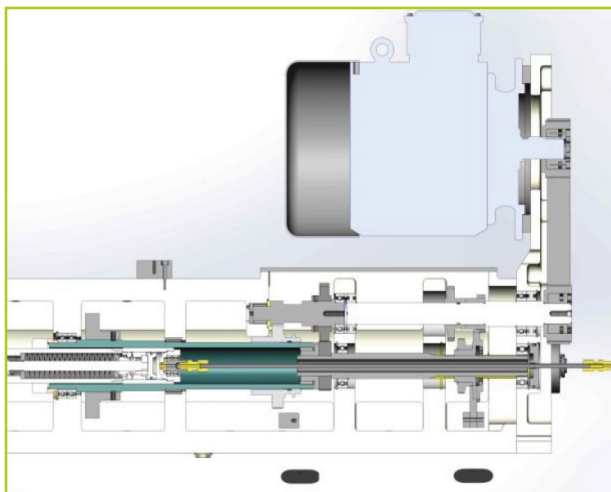
Universal swivel table funktion (ST-3)

## MACHINE DIMENSIONS



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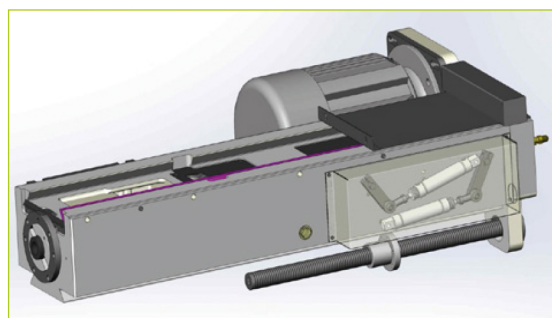
## TECHNICAL SPECIFICATION

| Technical specifications |        | WF 500 CNC        |
|--------------------------|--------|-------------------|
| <b>Table</b>             |        |                   |
| Table size               | mm     | 400 x 800         |
| Vertical table size      | mm     | 250 x 1200        |
| T-slots, work table      | mm     | 14 x 63 / 6 no.   |
| T-slots, vertical table  | mm     | 14 x 63 / 3 no.   |
| Table load capacity      | kg     | 380               |
| <b>Travel</b>            |        |                   |
| X / Y / Z Travel         | mm     | 500 / 350 / 400   |
| <b>Vertical spindle</b>  |        |                   |
| Spindle nose             |        | DIN-40 (DIN69871) |
| Range of spindle speed   | rpm    | 40 - 3.800        |
| Spindle travel           | mm     | 80                |
| Swiveling angle          | degree | +/- 90            |
| Spindle nose to table    | mm     | 190 - 594         |
| Center to column         | mm     | min. 110          |
| Center to column         | mm     | max. 495 (+200)   |

| Technical specifications       |        | WF 500 CNC         |
|--------------------------------|--------|--------------------|
| <b>Horizontal spindle</b>      |        |                    |
| Spindle nose                   | -      | DIN-40 (DIN69871)  |
| Range of spindle speed         | rpm    | 40 - 3.800         |
| Center to table surface        | mm     | 190 - 600          |
| <b>Feed</b>                    |        |                    |
| X / Y / Z axes                 | mm/min | 2000               |
| <b>Rapid feed</b>              |        |                    |
| X / Y / Z axes                 | mm/min | 5000               |
| <b>Motor</b>                   |        |                    |
| Motor for vert. / horz.        | kW     | 5.5                |
| Table feed (X/Y/Z)             | kW     | 1.0 / 1.0 / 2.0    |
| Coolant pump                   | kW     | 0.09               |
| <b>Dimensions &amp; weight</b> |        |                    |
| Machine dimension              | mm     | 1400 x 1780 x 1820 |
| Net weight                     | kg     | 1840               |
| Gross weight                   | kg     | 1950               |

### Standard configuration:

- ✓ SINUMERIK 828D controller
- ✓ Completely control panel arm type
- ✓ Servo driving motor on X/Y/Z axes movement
- ✓ Hydraulic clamping kit (DIN 40-DIN 69871) for vertical / horizontal spindle
- ✓ High precision ball screw on (Ø 32 mm) X/Y & (Ø 40 mm) Z axes
- ✓ 4 steps spindle speed change by air pressure lever (stepless)
- ✓ Folding housing table guard
- ✓ 3 pcs of reducing sleeves
- ✓ 3 pcs of pull studs (DIN 69872A)
- ✓ Collet chuck with 7 pcs collets (Ø 6, 8, 10, 12, 16, 20, 25 mm)
- ✓ Outer arbor support and long cutter arbor (27 mm) for horizontal spindle
- ✓ Telescoping dust shield cover on all 3 axes
- ✓ Completely electrical box and splash plate on both right/left side of column
- ✓ Auto lubrication system
- ✓ Coolant system
- ✓ LED work lamp
- ✓ Tools & tool box
- ✓ Levelling pad & bolts
- ✓ Manual



### Optional configuration:

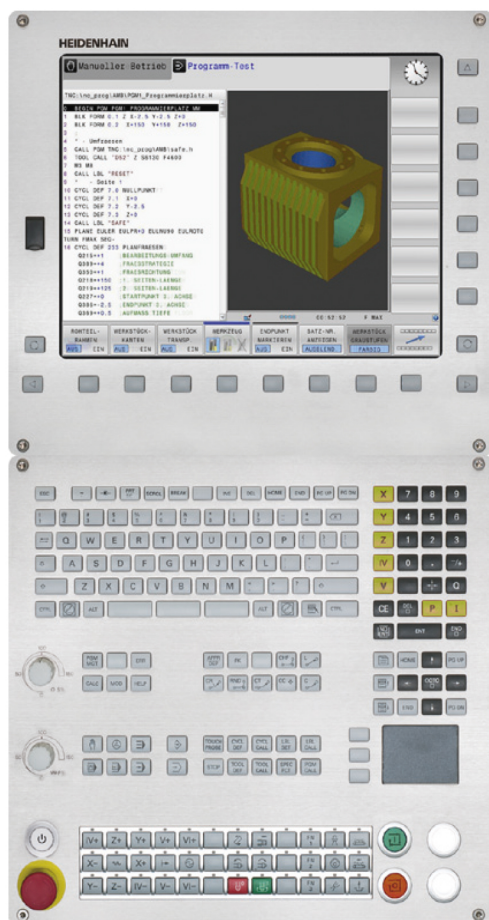
- Universalswivel table
- Long cutter arbor (22mm) for horizontal spindle
- Machine vice 200mm
- Shop mill (machining step programming)
- 3D simulation 1 (machined part)
- External coolant tank (200 L)
- 3 & 4 jaws chuck onto dividing head
- Slotting head attachment

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## CNC CONTROLLER



### Heidenhain TNC 620

The TNC 620 is a compact but versatile contouring control for up to five controlled axes. Thanks to its flexible operating concept—workshop-oriented programmability with HEIDENHAIN conversational programming or off line programming—and its scope of features, it is especially suited for use on universal milling, drilling and boring machines for the following:

- Series and single-part production
- Toolmaking Machine building
- Research and development
- Prototypes and pilot plants
- Repair departments
- Training and education facilities

#### Universal milling machines

- Free contour programming
- Milling cycles for complex contours
- Fast presetting with HEIDENHAIN touch probe

#### Drilling and boring machines

- Cycles for drilling, boring and spindle alignment
- Cycles for linear and circular point patterns



### Siemens Sinumerik 828D

The performance of the SINUMERIK 828D is a class of it's own. Even in the compact frame size, the familiar SINUMERIK state-of-the-art technology ensures the highest possible level of precision and productivity.

- Front interfaces (IP65): RJ45 Ethernet, USB 2.0, Compact Flash (CF) card
- Panel based CNC with panel front manufactured out of die-cast magnesium
- 10.4" color TFT display
- 16 softkeys
- No battery (continuous data buffering using NV-RAV technology), no fan, no hard disk
- Full QWERTY-keyboard
- Proximity sensor / distance sensor for smart display control

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