

# PRIMNER

## V4028

### Double Column Center



| Technical Specifications |                   | V4028     |  |
|--------------------------|-------------------|-----------|--|
| Table size               | 4000×2400 mm      |           |  |
| X/Y/Z Travel             | 4200/3300/1200 mm |           |  |
| X/Y/Z Rapid feed         | 12/15/20 m/min    |           |  |
| Spindle taper            | HSK A100          | BT50/SK50 |  |
| Spindle speed            | 12000 rpm         | 6000 rpm  |  |



4 linear guideways on Z axis ensure high rigidity and high accuracy of consecutive operation

Z axis with dual drive system

3 linear guideways on Y axis

Longer Y axis travel as standard to ensure more machining capacity when using 90° milling head

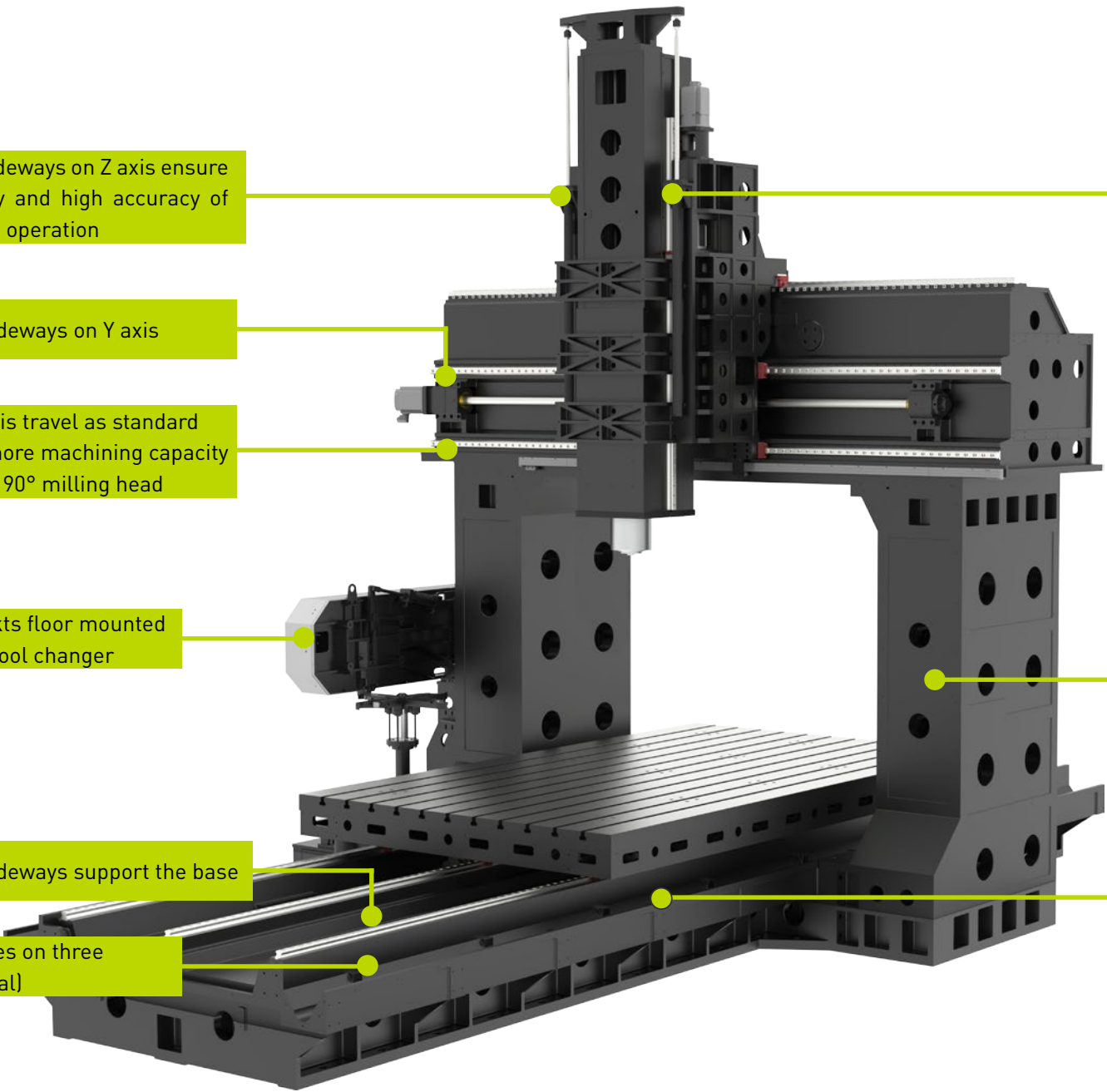
40/60 pockets floor mounted chain type tool changer

High rigidity column structure

3 linear guideways support the base

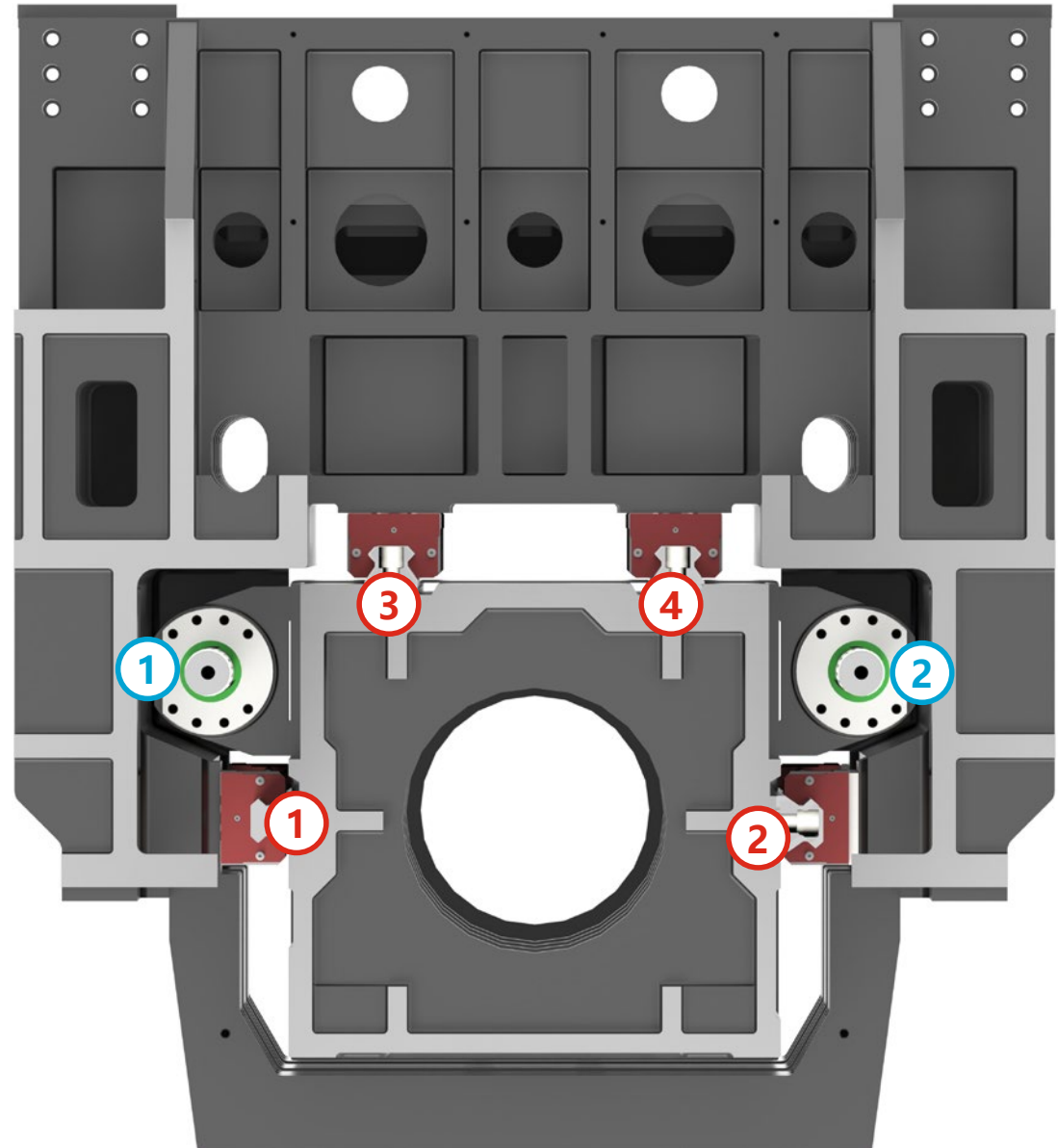
Two screw type and one chain type chip conveyor

Linear scales on three axes(optional)

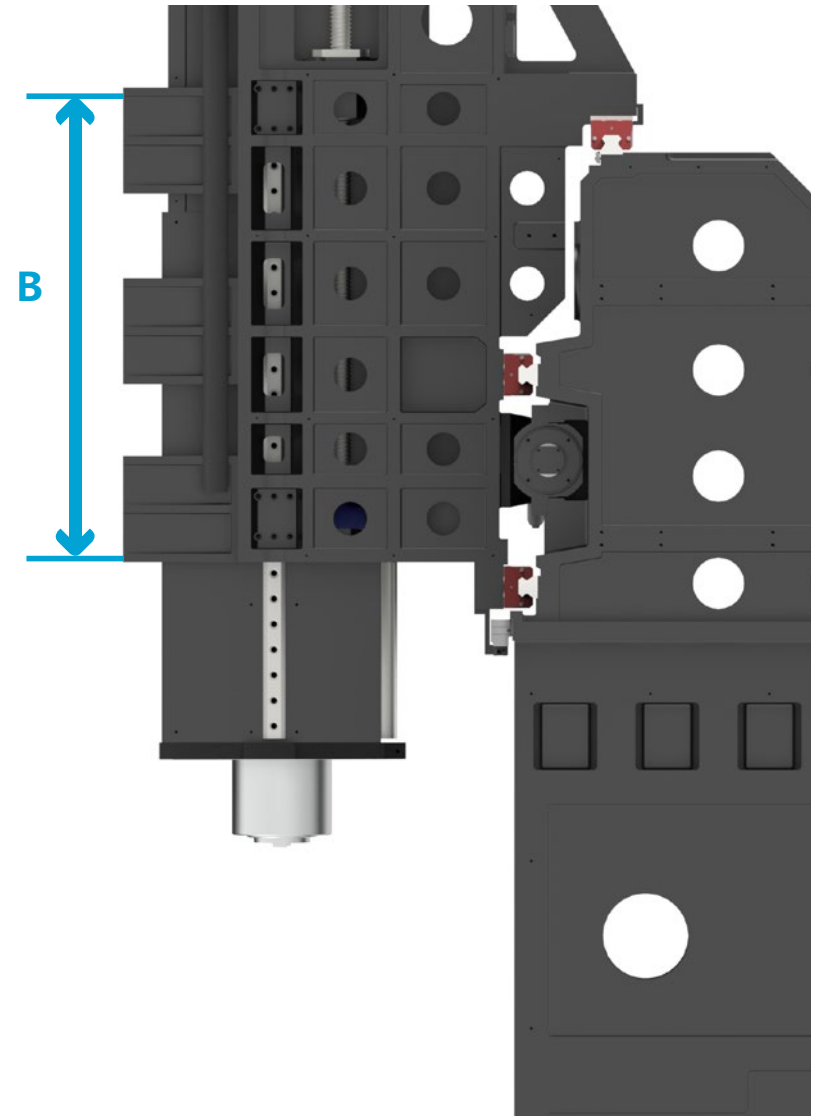
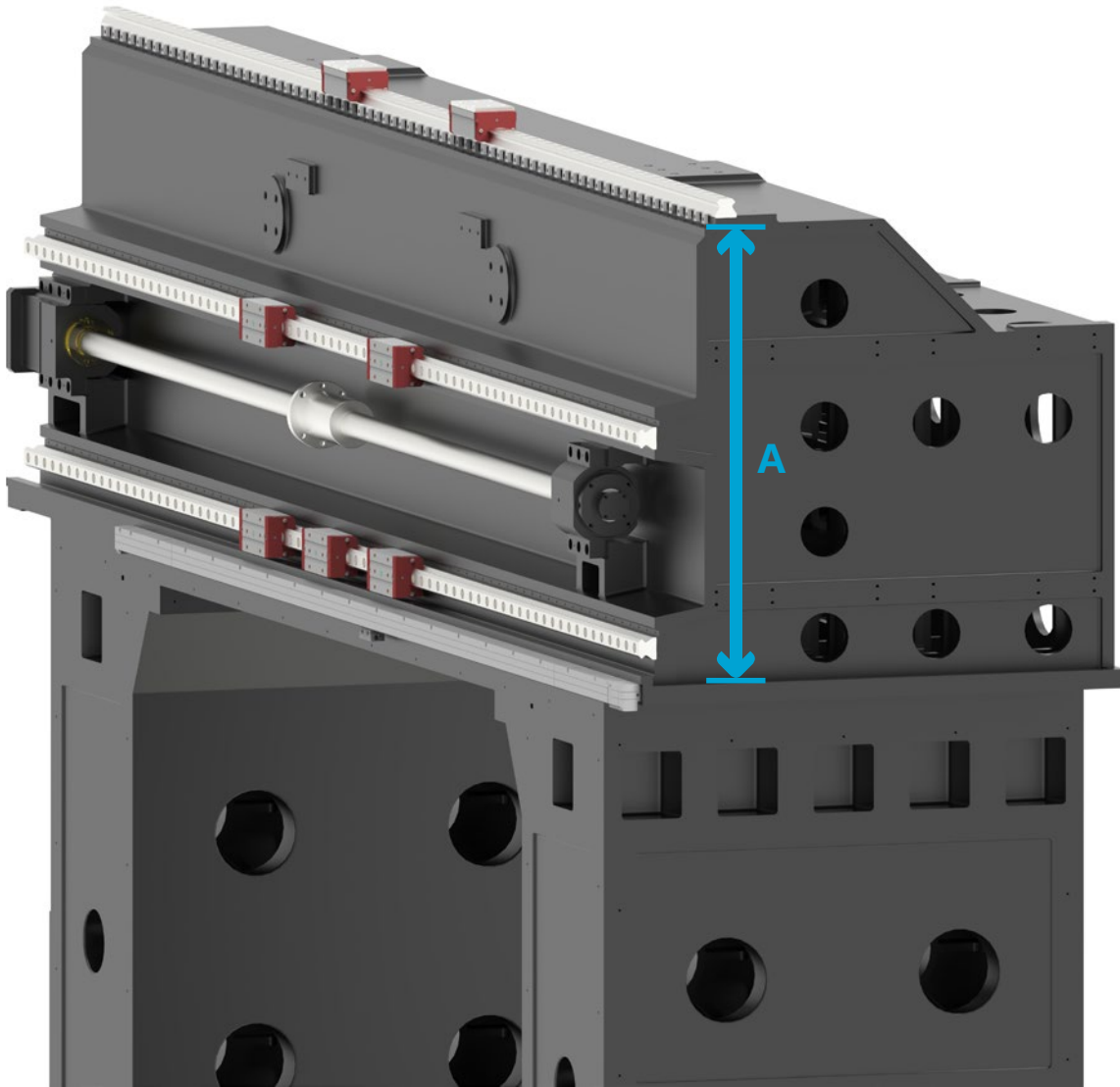


# HIGH RIGIDITY BED STRUCTURE

- 4 linear guideways on Z axis ensure high rigidity and high accuracy
- Z axis designed with dual drive technology two ballscrews for high dynamic machining



- 3 linear guideways on Y axis
- Height of A and B nearly same with Z axis travel



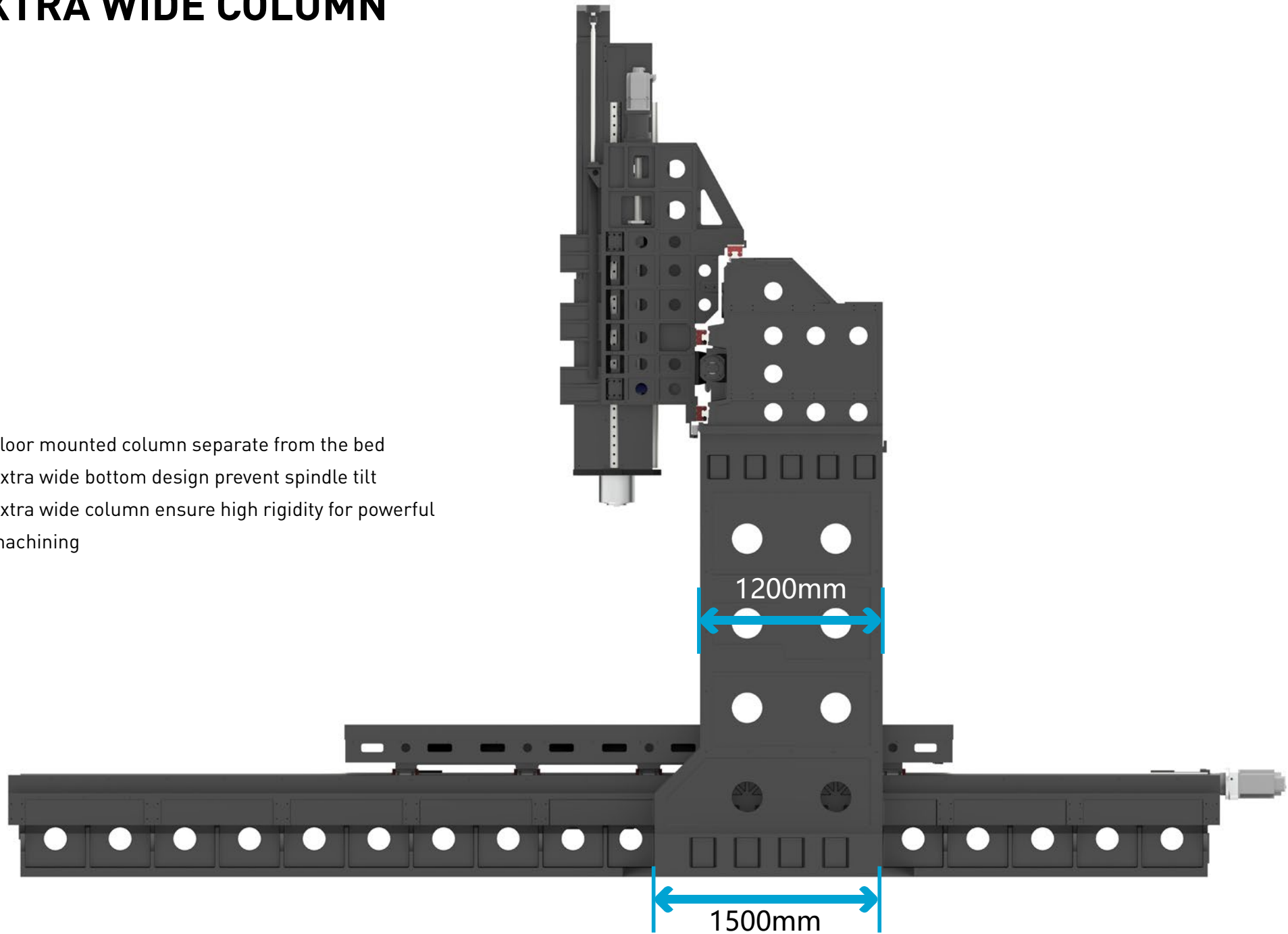
# HIGH STABILITY BASE

- X axis designed with 3 linear guideways and 15 blocks providing structural stability without deformation for working table



# EXTRA WIDE COLUMN

- Floor mounted column separate from the bed
- Extra wide bottom design prevent spindle tilt
- Extra wide column ensure high rigidity for powerful machining



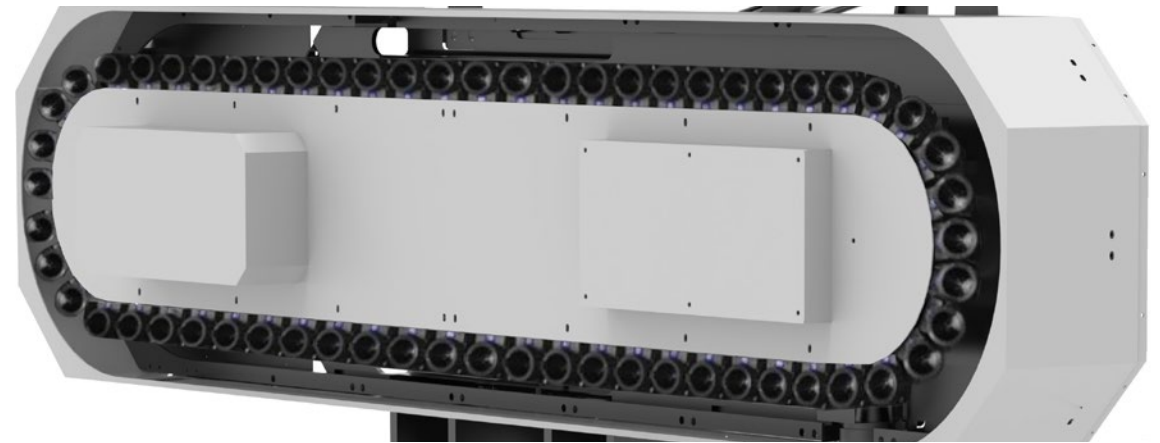
# FLOOR MOUNTED CHAIN TYPE TOOL CHANGER



- Heavy floor mounted tool changer separating with the bed ensure the stable accuracy for vibration during changing tools
- User-Friendly interface make the loading and unloading of workpiece easier
- High production efficiency

## Technical Specification

- 40/60 pockets BT50/SK50/HSK A100
- Max.tool length 400 mm
- Max.tool diameter  $\Phi 125/\Phi 250\text{mm}$ (next release)
- Max.tool weight 16 kg



# BLUM MEASURING SYSTEM

Universal High-Speed touch probe with multidirectional measuring mechanism

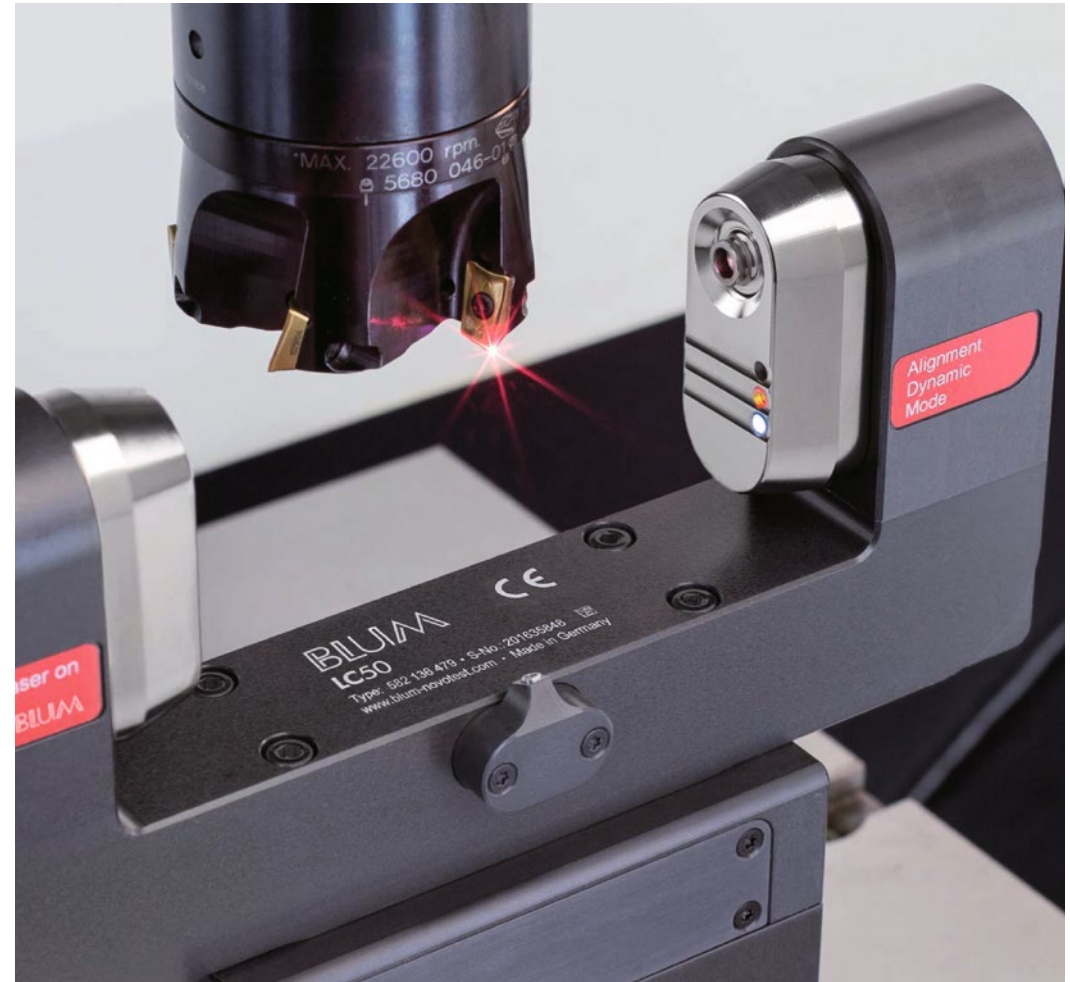
- ✓ Detection of workpiece position
- ✓ Correction of workpiece orientation
- ✓ Thermal compensation of the machine tool
- ✓ Contour measurement

## Your benefit:

- ✓ Measuring speed up to 3 m/min
- ✓ Precise, non-lobing touch characteristics
- ✓ No-wear, optoelectronic measuring mechanism
- ✓ Use of two measuring systems with one IR receiver
- ✓ Extended battery life
- ✓ Precise measurement even with coolant
- ✓ Proven and robust design

## Highlights

- ✓ Proven high-precision laser measuring system;
- ✓ Non-contact, optical tool measurement;
- ✓ 100 % reliable due to BLUM protection system



# SIEMENS SINUMERIK 828D

The perfect solution for all performance classes

## New Panel Processing Unit

- ✓ Higher processor performance
- ✓ Digital Input with higher voltage stability
- ✓ 1GB Ethernet interface X130
- ✓ Pull-relief for the DRIVE-CLiQ and PN cables
- ✓ More robust touch-operation 15,6" PPU290.4

## Features for milling Cogging torque compensation and 2nd channel for milling

- ✓ System integrated function
  - Drive-based function SINAMICS
- ✓ Automatic measure of the cogging torque
- ✓ Pre-control of periodic repetitive torque ripple
- ✓ Function available for rotative-, linear- and torque motors
- ✓ 2nd Channel Milling
  - For both machining and handling & robot purpose

## Nodding Compensation ECO/Advanced and Advanced Position Control ECO

- ✓ Intelligent control based compensation
  - New developed compensation algorithm
- ✓ System integrated function
  - As a CNC and HMI feature
- ✓ Scalable function in 3 steps
  - ECO
  - Advanced
  - Compile Cycle
- ✓ Commissioning support with HMI masks
  - Additional input mask from SINUMERIK Operate

## Higher speed, more accurate for the entry level

## Tool Ident Connection

## Jerk Adaption

## Top Speed plus

## Intelligent Load Control (ILC)

## Intelligent Dynamic Control (IDC)



# TECHNICAL SPECIFICATIONS

| Technical Specifications                      | V4028                |                          |
|---|----------------------|--------------------------|
| <b>Table</b>                                  |                      |                          |
| Table size                                    | 4000×2400 mm         |                          |
| T-slot (width x number x distance)            | 28×11×200 mm         |                          |
| Max. load                                     | 12000 kg             |                          |
| <b>Travel</b>                                 |                      |                          |
| X/Y/Z Travel                                  | 4200/3300/1200 mm    |                          |
| Spindle nose to table                         | 250-1450 mm          | 300-1500 mm              |
| Distance between columns                      | 2800 mm              |                          |
| <b>Spindle</b>                                |                      |                          |
| Spindle taper and speed                       | BT50/SK50,6000 rpm   | HSK A100,12000 rpm       |
| Spindle motor power and torque(SIEMENS)       | 22/60kW,172/380Nm    | 20/22.5 kW, 298/346.5 Nm |
| Spindle motor power and torque(FANUC)         | 22/45 kW,140/286 Nm  | /                        |
| <b>Feed</b>                                   |                      |                          |
| Rapid feed X/Y/Z                              | 12/15/20 m/min       |                          |
| Cutting speed                                 | 1-12000 mm/min       |                          |
| <b>Tool changer</b>                           |                      |                          |
| Number of tools                               | 40/60 pcs            |                          |
| Max. tool length                              | 400 mm               |                          |
| Max. tool diameter                            | Φ125 / Φ250 mm       |                          |
| Max. tool weight                              | 15 kg                |                          |
| <b>Accuracy(VDI 3441 Full travel)</b>         |                      |                          |
| Positioning accuracy(without linear scales)   | 0.025/0.020/0.015mm  |                          |
| Repeatability accuracy(without linear scales) | 0.020/0.015/0.010mm  |                          |
| Positioning accuracy(with linear scales)      | 0.020/0.015/0.010 mm |                          |
| Repeatability accuracy(with linear scales)    | 0.015/0.010/0.006 mm |                          |
| <b>Dimensions &amp; Weight</b>                |                      |                          |
| Dimensions                                    | 11980×6751×5920 mm   |                          |
| Weight  | 50000 kg             |                          |

# STANDARD /OPTIONAL CONFIGURATION

● Standard ○ Optional

| Configurations  | Standard | Optional |
|---|----------|----------|
| Full enclosed splash guard  | ●        |          |
| Belt drive spindle 6000 rpm,BT50/SK50                                   | ●        |          |
| Chip conveyor (two screw type and one chain type)                       | ●        |          |
| Spindle oil cooler  | ●        |          |
| Air-conditioned electrical cabinet                                      | ●        |          |
| Ethernet, CF card and USB interface                                     | ●        |          |
| Automatic lubrication system  | ●        |          |
| Linear scales on X/Y/Z axis   |          | ○        |
| Built-in spindle 12000 rpm HSK A100 (Only available on SIEMENS Control) |          | ○        |
| Belt drive spindle with BF gearbox                                      |          | ○        |
| CTS Coolant through spindle + ATS                                       |          | ○        |
| 40 pockets chain type tool changer                                      |          | ○        |
| 60 pockets chain type tool changer                                      |          | ○        |
| Auto Power Off  |          | ○        |
| Workpiece probe   |          | ○        |
| Tool probe  |          | ○        |
| Manual 90° milling head   |          | ○        |
| Coolant system  | ●        |          |
| LED working lamp  | ●        |          |
| End of program light  | ●        |          |
| Electronic handwheel (MPG)  | ●        |          |
| Tool box  | ●        |          |
| Leveling bolts and blocks   | ●        |          |
| Air blast during cutting  | ●        |          |
| Coolant gun   | ●        |          |
| Air gun   | ●        |          |
| User Manual   | ●        |          |

# OPTIONS



Tool and workpiece probe

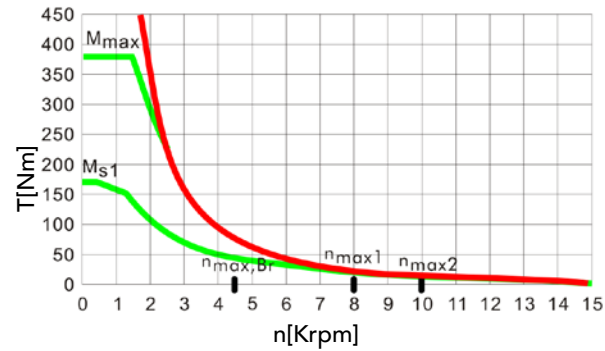
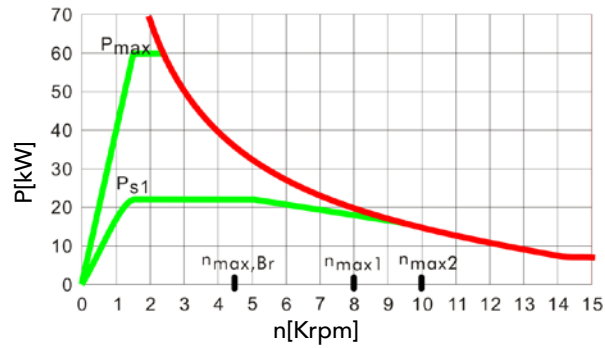


CTS coolant through spindle

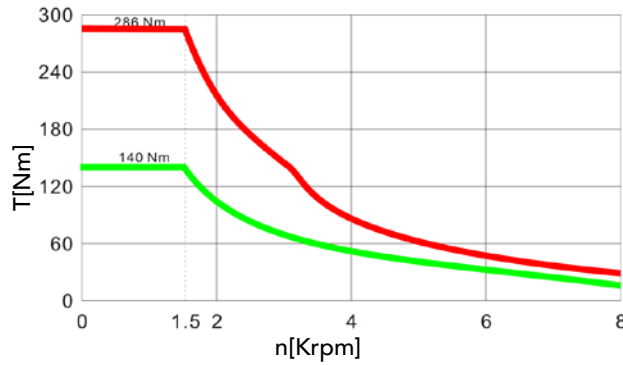
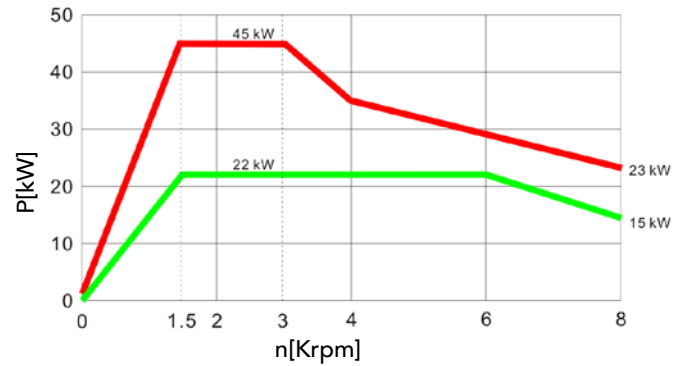


Manual 90° milling head

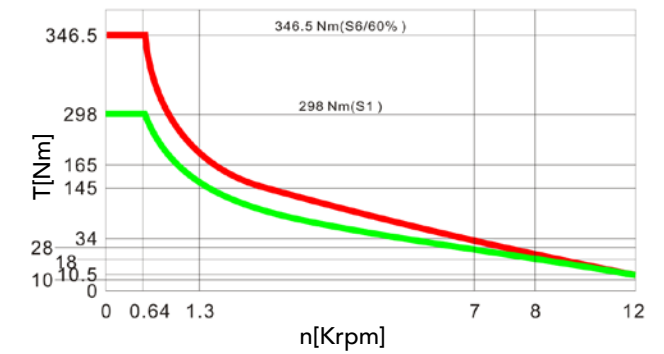
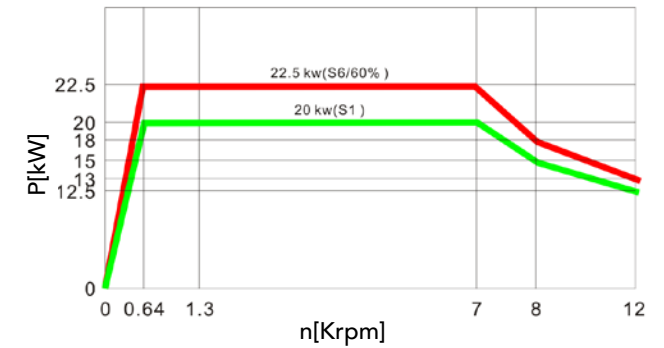
# TORQUE DIAGRAM



BT50/SK50-6000 rpm-SIEMENS

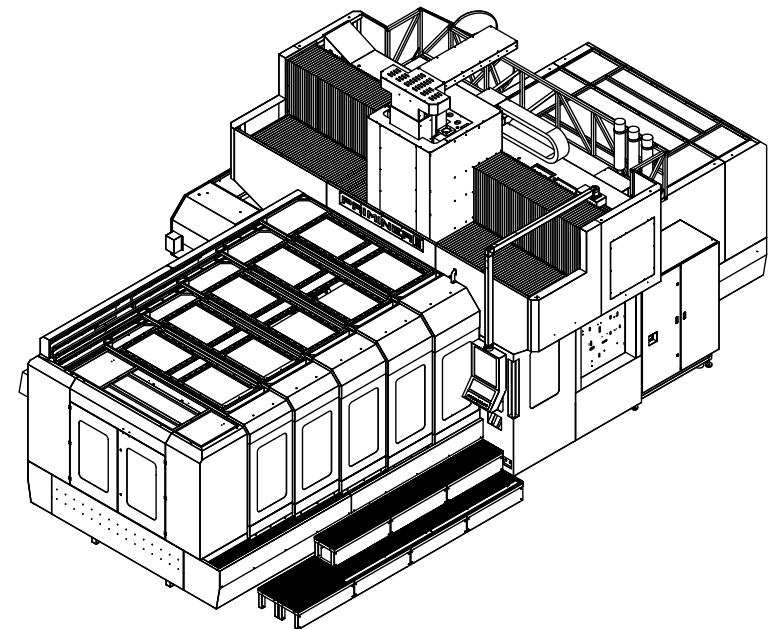
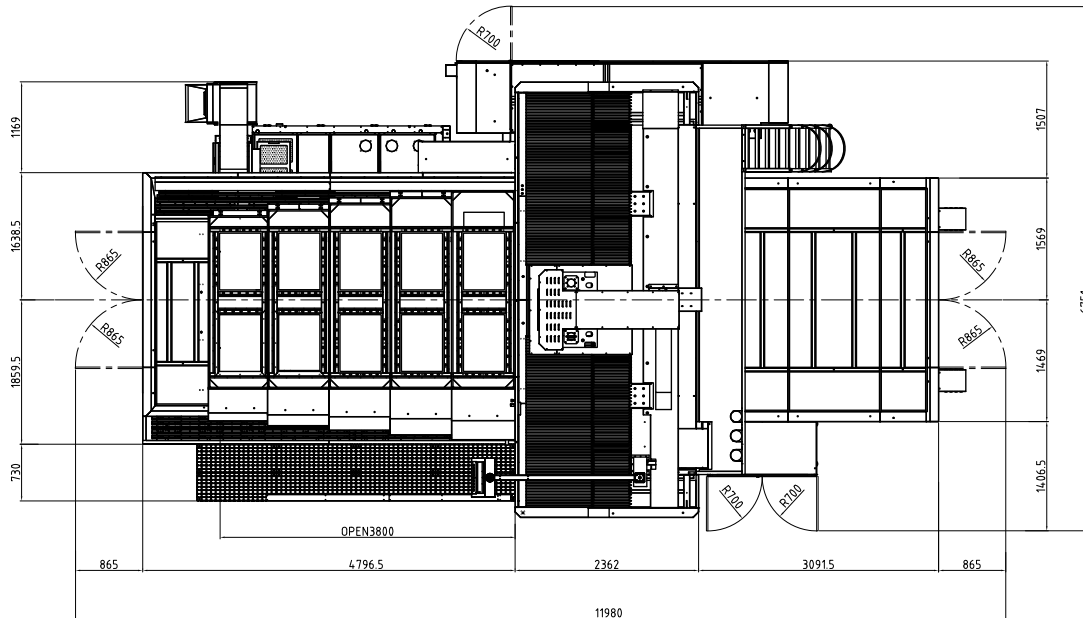
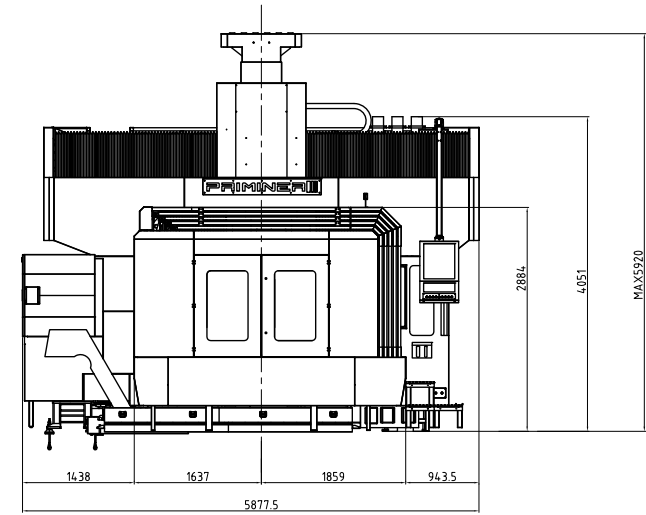
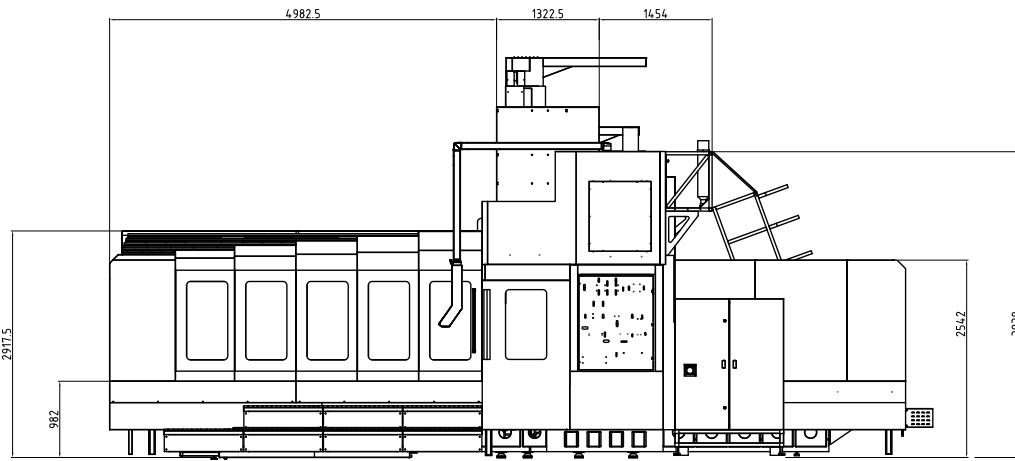


BT50/SK50-6000 rpm-FANUC



HSK A100-12000rpm-SIEMENS

# DIMENSIONS







# IMINER Global TEAM

# PRIMINER Solutions



hyperMILL

DIJET NS TOOL

SolidCAM  
The Leaders in Integrated CAM

GÜHRING



pl LEHMANN®



HAIMER.



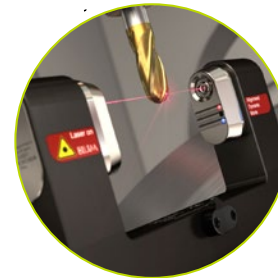
SCHUNK



Blaser.  
SWISSLUBE



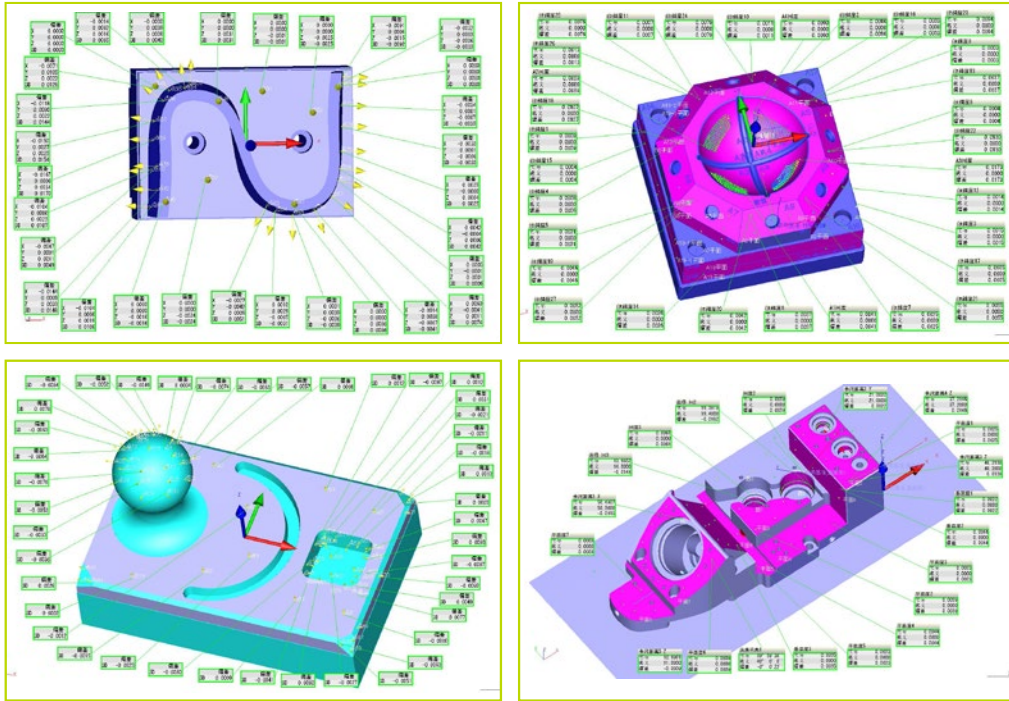
REGO-FIX



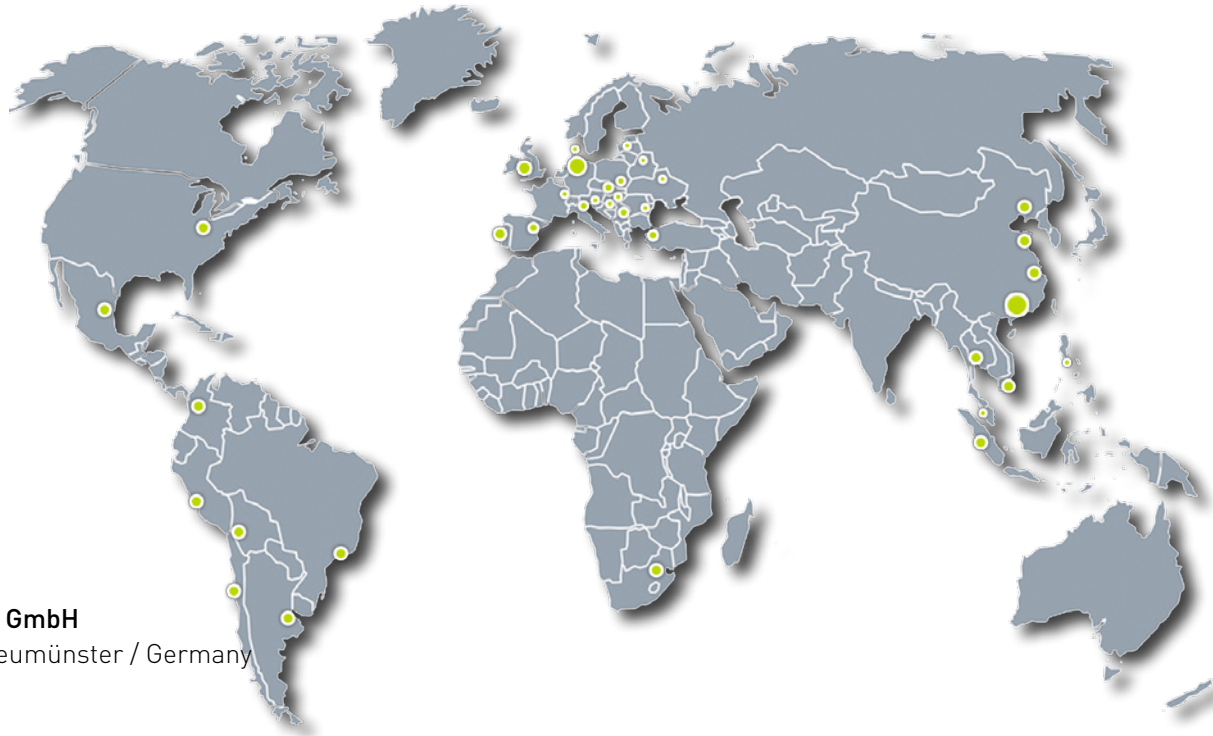
BLUM  
focus on productivity



Workpiece measuring by CMM



# PRIMINER



## **PRIMINER Werkzeugmaschinen GmbH**

Tungendorfer Str.10 · D-24536 Neumünster / Germany  
Tel: +49 (0) 4321-53 9946 -0  
Fax: +49 (0) 4321-25 2003 -90  
E-mail: [info@priminer.de](mailto:info@priminer.de)

## **PRIMINER SOUTH EAST EUROPE · PRIMINER d.o.o. BEOGRAD**

Vladimira Popovica 38-40 · GTC - 11070 Beograd / Srbija  
Tel: +381 69 702 705  
Fax: +381 11 715 69 00  
E-mail: [office@priminer.de](mailto:office@priminer.de)

## **PRIMINER MACHINE TOOLS DONGGUAN CO., LTD**

XinRuYi Industrial Park, Fuxing Road, Xingguang Village, Huangjiang Town, Dongguan, P.R.China  
Tel: +86 769 838 490 61  
Fax: +86 769 838 490 62  
E-mail: [sales@priminer.de](mailto:sales@priminer.de)

[www.priminer.de](http://www.priminer.de)