

SIX-SPINDLE AUTOMATIC LATHE

MORI-SAY TMZ642CNC



STANDARD CONFIGURATION

- High precision at mass and batch production
- High thermal stability
- Rigidity comparable with cam type machines
- Spindle drum locking with 3 spur gear rims
- Two CNC Siemens SINUMERIK 840D Solution line control systems
- Proprietary technological TMis software
- 6 independent AC spindle drives
- 6 longitudinal slide rests
- 5 compound slide rests
- 1 parting off slide rest
- 1 axis for drum indexing with bar feeding in the working position 1
- Totally 26 CNC controlled axes and 22 auxiliary CNC axes for control of optional accessories
- Motors and drives with continuous SINAMICS speed control from Siemens
- Auxiliary functions controlled pneumatically or hydraulically

Each spindle is driven with an external AC drive so that the following operations are not necessary:

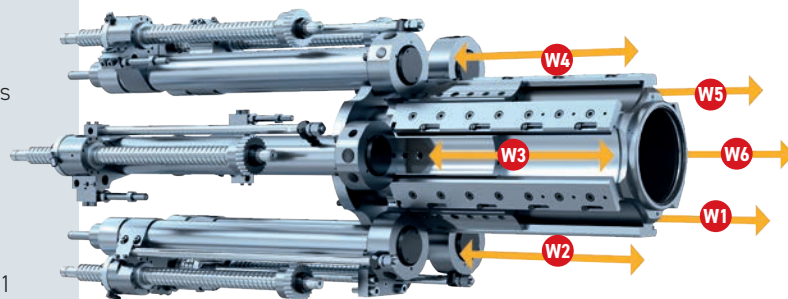
- Spindle drum reverse indexing after completing 6 pieces
- Connection and disconnection of the AC drive at each indexing
- Drum cooling from waste heat generated by electric spindles
- Power supply to the electric spindles through a rotary busbar

OPTIONAL EQUIPMENT

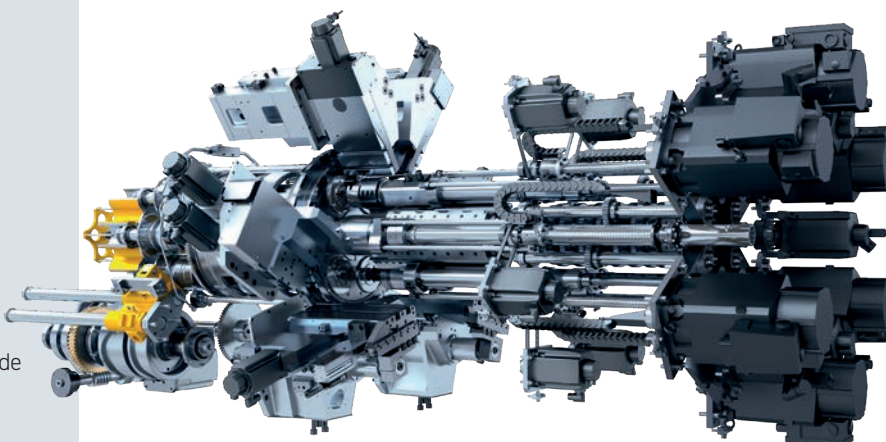
- Pick-up spindle with CNC controlled speed and hydraulically controlled collet clamping
- Tool slide rest for machining from the parting off with 2 axes (U6 and V6) and tool holder (3 tools)
- Device for radial and axial drilling and milling from the parting off side
- Driven tools with CNC controlled speed
- Compound slide rests with Y axis in the positions 2, 3, 4 or 5
- CNC driven tools for internal machining and thread cutting
- CNC driven tools for cross and longitudinal machining from compound slide rests
- Manipulator for workpiece withdrawal from the pick-up spindle
- Workpiece conveyor
- Bar feeding system for the working position 4

An advanced technical solution developed by our designers and protected with a patent allows independent control of speed of each spindle and precise distribution of output for each AC spindle drive in link with the machining conditions required by individual customers. At the same type, absolute independence of each spindle allows to utilize any machining method including the operations requiring spindle stopping and positioning which makes from TMZ642CNC a really multifunctional machining centre.

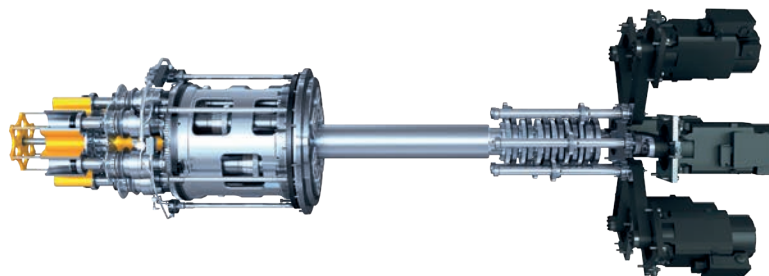
The proprietary TMis technological software has been developed to make programming easier.



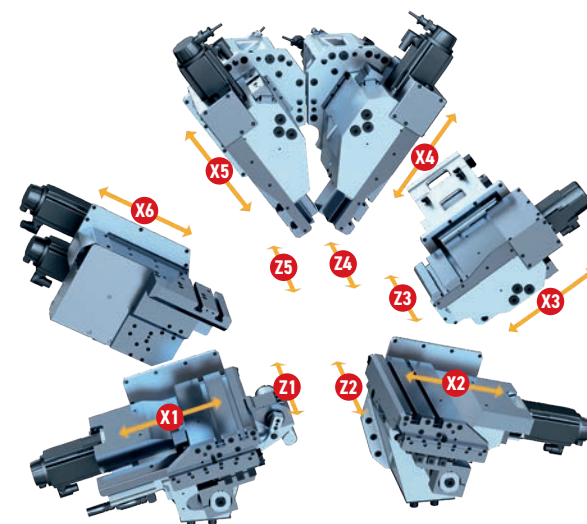
Machine longitudinal slide rests



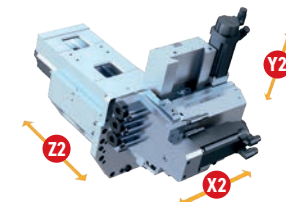
Configuration of spindle drives and slide rests TMis



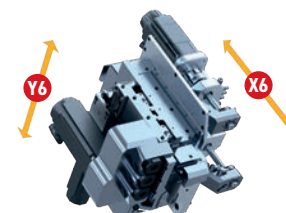
Spindle drive with independent speed



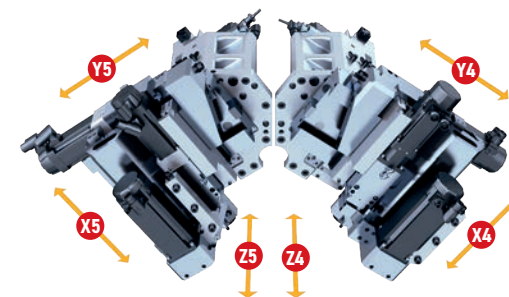
Configuration of machine compound slide rests



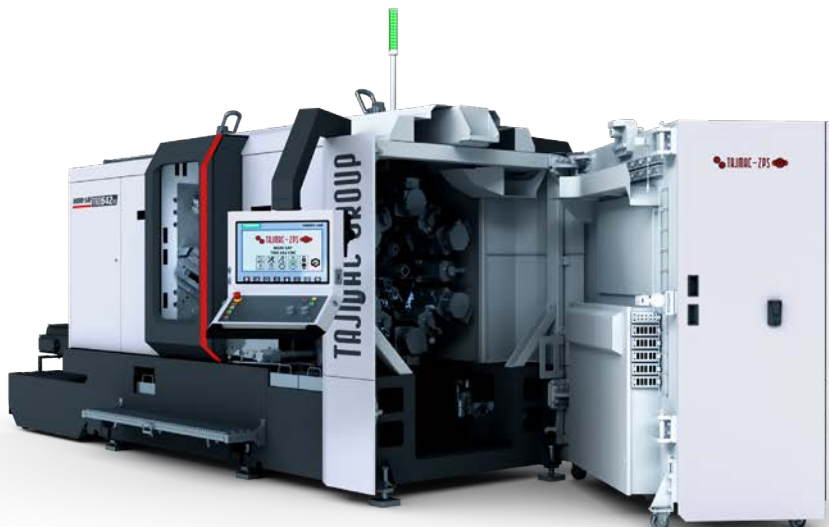
Slide rest in the position 2 with Y axis



Slide rest in the position 6 with Y axis, up to 3 rotary tools



Slide rest in the positions 4 and 5 with Y axis, up to 3 rotary tools



FOLDABLE ELECTRIC SWITCHBOARD BOX FORMS A PART OF THE MACHINE

It allows easy access to the machine mechanisms



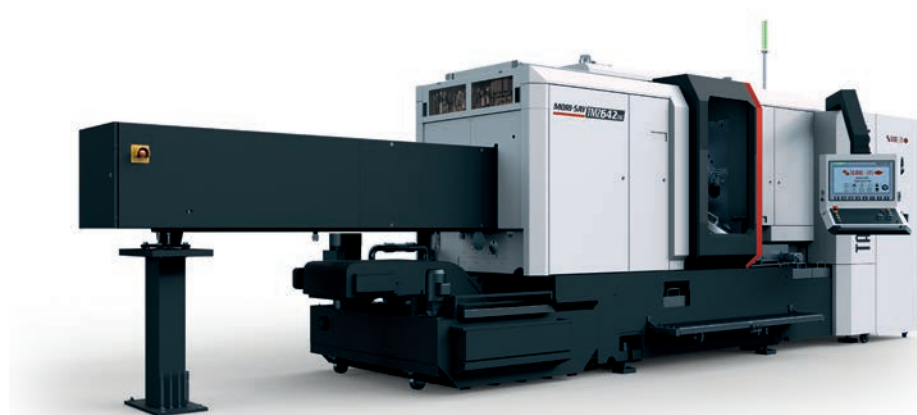
TWO IDENTICAL CONTROL PANELS

For easy and comfortable operation



SIEMENS CONTROL SYSTEM

With TMis technological software



MACHINE CONFIGURATION WITH STANDARD STOCK GUIDING SYSTEM

Manufacturer TAJMAC-ZPS



MACHINE CONFIGURATION WITH AUTOMATIC MAGAZINE

Manufacturer Cucchi-BLT

The six-spindle fully CNC controlled automatic lathe with high precision, rigidity and speed.

It has been designed for mass and batch production of precise components made of bar stock with max. of up to $\varnothing 42$ mm. The machine is suitable in particular for production of the products from the automotive sector and hydraulic and pneumatic components. Its high productivity is allowed thanks to standard 26 CNC controlled axes while other 22 axes are available for control of optional equipment and

6 spindles with max. speed of 5,000 rpm. Idle time with drum indexing is 0.7 s. Two Siemens SINUMERIK 840D Solution line control systems and two operator's panels provide comfort and user-friendly operation. A wide range of accessories including automatic magazines for stock bars extends the technological capabilities of the machine.

TECHNICAL SPECIFICATION

Number of CNC controlled axes

Standard	26
Accessories	22

Stock bar dimensions

Circular cross section	Ø 42 mm
Hexagonal cross section	Ø 36 mm
Max. stock bar length	4,000 mm
Max. length of stock bar feeding	180 mm

Stock bar dimensions

(when using the automatic stock bar magazine)	min.	max.
Bar diameter for SK52BZI HAINBUCH clamping collet	Ø 16 mm	Ø 48 mm
Bar diameter for SCHÜTTE 42 9112E type clamping collet	Ø 15 mm	Ø 45 mm
Bar diameter for SCHÜTTE 32 9070E type clamping collet	Ø 13 mm	Ø 37 mm

SP1-SP6 axes spindles

Pitch diameter	340 mm
Max. speed	5,000 rpm
Nominal output	7 kW
Torque Mn on machine spindle at 1,000 rpm	66.8 Nm
Idle time – Tz	0.7–1 s

W1-W6 axes longitudinal slide rests

Max. working stroke	360 mm
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X1-X5, Z1-Z5 axes compound slide rests

Number (positions I, II, III, IV, V)	5
Stroke in longitudinal direction – Z1-Z2 axes	160 mm
Stroke in longitudinal direction – Z3-Z5 axes	120 mm
Stroke in cross direction – X1-X5 axes	80 mm

X6 axis parting off slide rest

Stroke	66 mm
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PICK-UP tool slide rest, U6 axis (V6 axis as an option)

U6 stroke	80 mm
V6 stroke	106 mm
Max. number of tools	3

S01-S06 axes counter-spindles

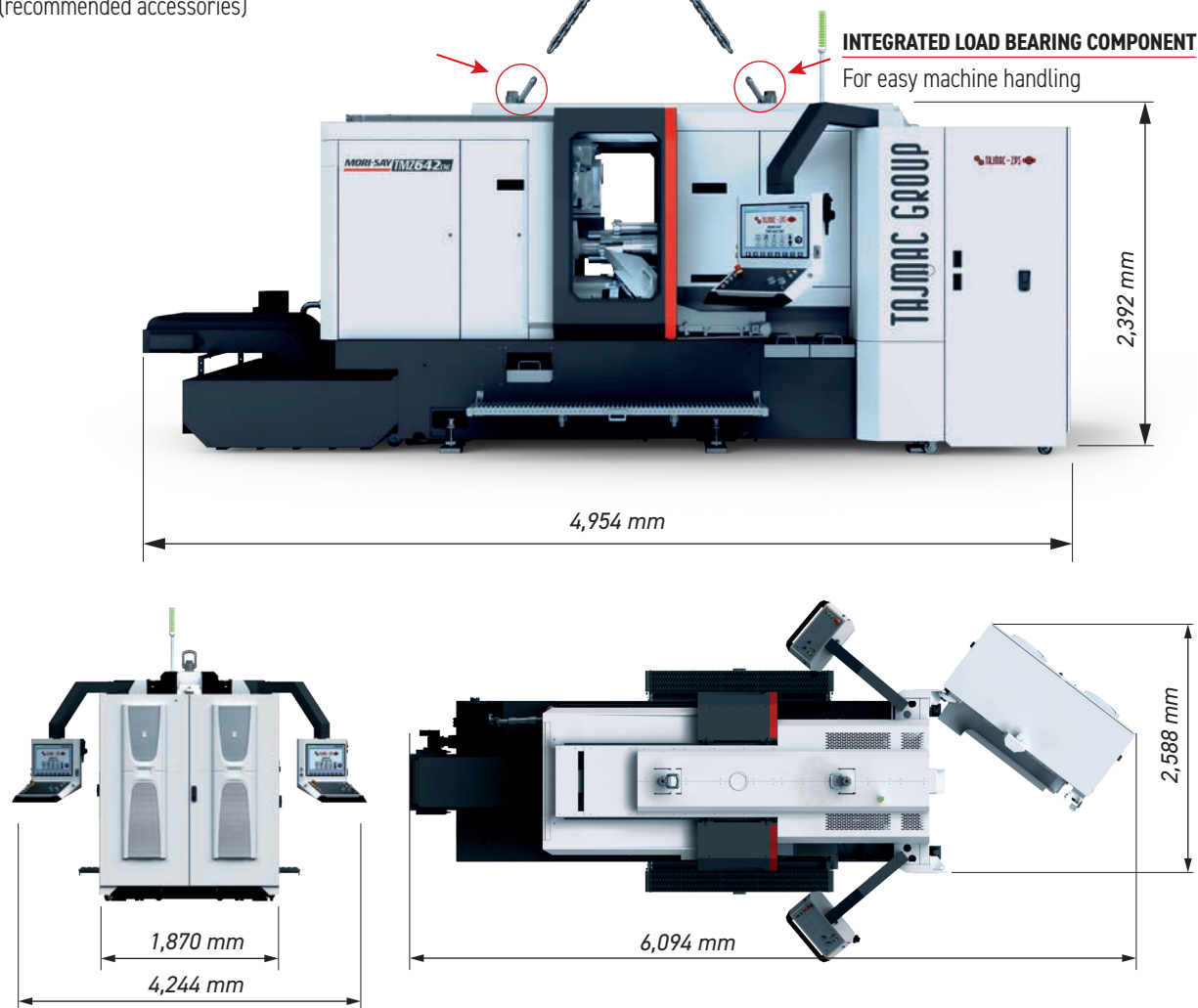
Max. speed	6,000 rpm
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Machine dimensions

– Length with bar stock guiding system	7,811 mm
– Length without bar stock guiding system	4,965 mm
Machine height	2,392 mm
Machine width	1,870 mm
Machine weight	11,750 kg

MACHINE DIMENSIONS WITH AUTOMATIC BAR STOCK MAGAZINE

(recommended accessories)



Description of illustrations and numerical data may not necessarily correspond to the last machine design. 8/2024

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