SIX-SPINDLE AUTOMATIC LATHE MORI-SAY

MORI-SAY 632AC/642AC

EN

TAJMAC-ZPS

MORI-SAY

STANDARD EQUIPMENT

- Spindle drum locking by a triad of rims with spur gearing
- SIEMENS SIMOTICS S variable speed motors
- SIEMENS SINAMICS S120 drive control
- PLC – SIEMENS SIMATIC S7-15xx programmable logic controller
- HMI – touch screen Siemens IPC477E 15"
- 6 cross slides and 6 longitudinal slides
- 4 independent compound slides in the 1st, 2nd, 4th and 5th stations
- Feeding, clamping and bar stop in the 6th station
- 4 safety clutches preventing from the slides overloading
- Standard bar stock guide

MACHINE VERSIONS

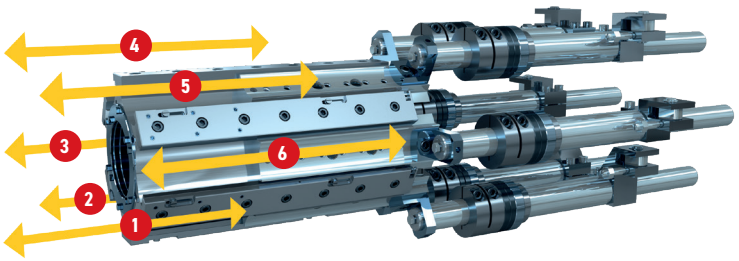
- S version with the possibility of the general stop of spindles (632SAC and 642AC models)

OPTIONAL EQUIPMENT

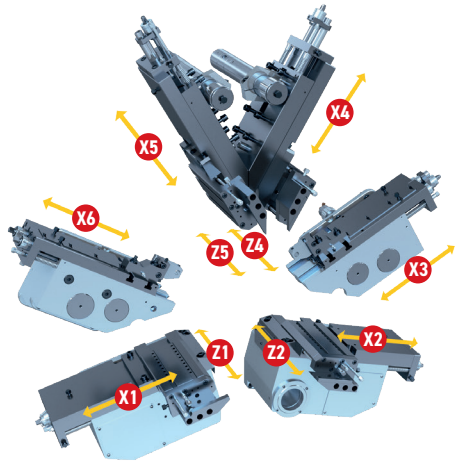
- Independent drive of the central block
- Bar stock feeding attachment in the 3st station
- Oriented stop of spindles (hydraulic or NC) – 632SAC and 642SAC versions
- Pick-up spindle with hydraulically controlled collet clamping
- Brake of pick-up spindle
- NC drive of the pick-up spindle
- Tool slide for the cut-off side machining (mechanical or NC)
- NC longitudinal feed drive Pick-up in 6th position
- Attachment for thread cutting, high-speed drilling, reaming and face milling
- NC drives of rotary tools
- Special drilling: cross drilling, eccentric drilling, synchronous
- Drilling, milling and threading units
- Workpiece marking, thread milling and polygon machining at rotation
- NC compound slides for the 1st, 2nd, 4th and 5th stations
- Preparation for the automatic bar loader, oil mist exhaustion
- Selection of the chips conveyors and coolant in the sedimentation tank
- High-pressure coolant and tool wash-out
- Set-up for a part machining and the machine acceptance in the TAJMAC-ZPS plant
- NC option with SIEMENS SINUMERIK 840dsl (ONE) control system
- NC drives with SIEMENS SIMOTICS S motors from the 1FT7 series

INDUSTRY 4.0

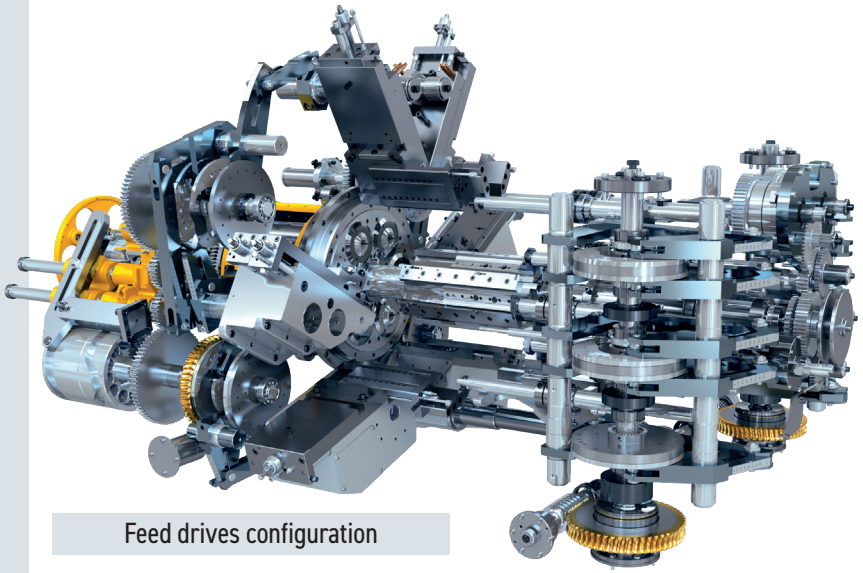
- Remote machine control



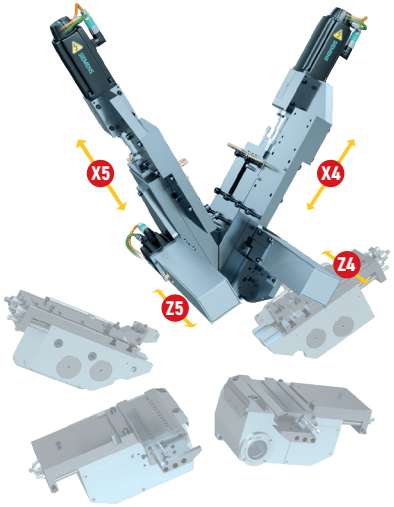
Longitudinal slides



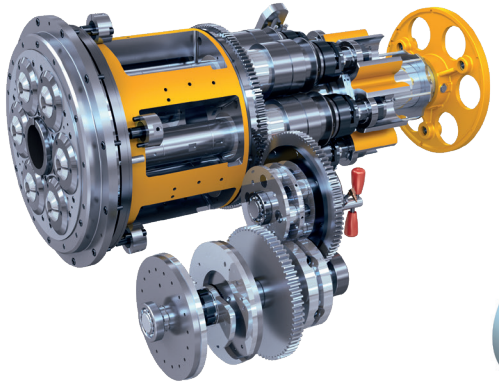
Cross and compound slides



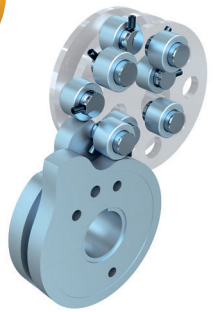
Feed drives configuration



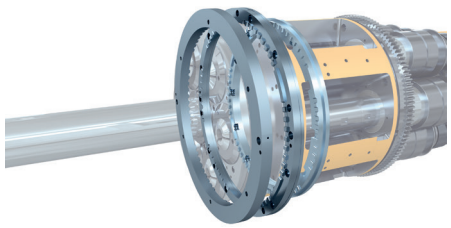
CNC compound slides in the 4th and 5th stations



Spindle drum indexing mechanism



Double cam for indexing mechanism

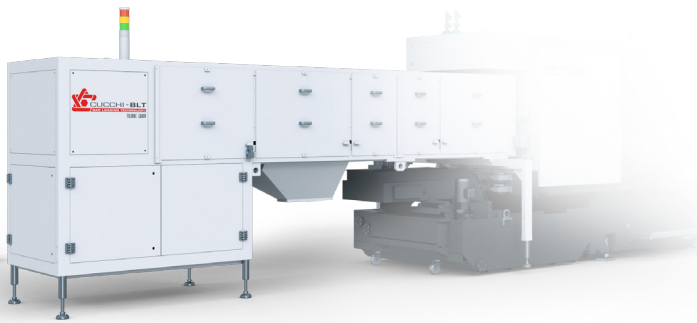


Spindle drum locking – system HIRTH

A FOLDABLE ELECTRICAL CABINET IS A PART OF THE MACHINE

Allows easy access to the machine mechanism

MACHINE CONFIG. WITH THE STANDARD BAR GUIDE SYSTEM



MACHINE CONFIG. WITH THE AUTOMATIC BAR MAGAZIN

CONSTRUCTION

- The conception characteristics is the high accuracy and rigidity at machining
- Spindle drum indexing mechanism with safety clutch
- Working space – couple of slides in the 6th station
- Sedimentation tank capacity of 1 200 litres makes it possible to keep the temperature of coolant at acceptable temperature levels which influences favourably the machine thermal stability and subse-quently the stability of workpiece dimensions
- Replacement of the Geneva mechanism by a stepping mechanism with a double cam and carrousel enabled:
  - reduction of the unproductive angle of the cam shaft rotation by 20°
  - elimination of the vibration caused by the effect of the Geneva mechanism dynamic characteristics
  - spindle drum indexing with a precision which reduces the stress of the locking mechanism
- Independent overload released clutch is installed on each of four cam shafts
- Usage of the controlled AC motor enables the stepless setting of the spindle speed from the machine control panel this replaces the step-bystep change of the spindle speed by means of the gear wheels Exchange

STRONG POINTS OF THE TECHNICAL IMPROVEMENT

- Tool slide for the machining of the cut-off side in the 6th station is controlled by an independent cam which enables the fast and complete machining of a part
- Bar stock feeding can be fixed, as the option, in the 1st station. This enables the extension of the operational angle for the cut-off side machining in the 6th station up to 100°
- Slide in the 3rd station can be divided into two lides controlled by independent cams to enable both the operation with double feeding and the machining of the cut-off side as well as the double machining during the machine normal cycle
- Central block can additionally be equipped with an independent movement controlled by the cam, and with the supporting stays for machining of the long or extremely precision components
- Spindle drum indexing hydraulic disengagement, feeding and clamping of the bar stock are controlled from the machine control panel
- Speed of spindles, feed rates and preselected stop according to the number of workpieces is chosen on the machine control panel keyboard
- High compatibility of parts used with the MORI-SAY 832 machine
- Sufficiently dimensioned electrical cabinet for additional installation of the NC options
- Simple installation of the NC drives of the longitudinal slides including the Pick-up
- New arrangement of the work space improves the swarf removal from the machine and ensures more efficient oil mist exhausting
- Easy access to the transfer pump
- Adapted supporting of the spindle drum

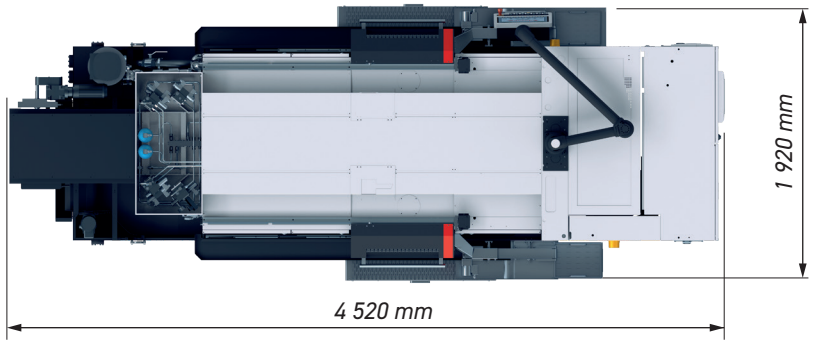
COMPATIBILITY

Majority of the standard and optional equipment is congruent with the equipment of the 6 or 8 spindle automatics of the 25, 32 and 42 mm size series which are in the MORI-SAY type series.

TECHNICAL PARAMETRES

	632AC	632SAC	642AC	642SAC
Number of spindles	6	6	6	6
Inner dia of clamping tube	43 mm	43 mm	53 mm	53 mm
Bar stock dimension				
– Round cross section	Ø 32 mm	Ø 32 mm	Ø 42 mm	Ø 42 mm
– Hexagonal cross section	27 mm	27 mm	36 mm	36 mm
– Square cross section	22 mm	22 mm	29 mm	29 mm
Pitch diameter of spindles	276 mm	276 mm	276 mm	276 mm
Max. length of bar feeding	125 mm	125 mm	125 mm	125 mm
Longitudinal slides – number	6	6	6	6
Range of total strokes	45 - 120 mm	45 - 120 mm	45 - 120 mm	45 - 120 mm
Range of working strokes	0 - 110 mm	0 - 110 mm	0 - 110 mm	0 - 110 mm
Cross slides – number	6	6	6	6
Range of total strokes	30 - 60 mm	30 - 60 mm	30 - 60 mm	30 - 60 mm
Range of working strokes	0 - 55 mm	0 - 55 mm	0 - 55 mm	0 - 55 mm
Compound slides – number	4	4	4	4
Range of total longitudinal strokes	35 - 70 mm	35 - 70 mm	35 - 70 mm	35 - 70 mm
Range of working longitudinal strokes	0 - 64 mm	0 - 64 mm	0 - 64 mm	0 - 64 mm
Working cycle				
Range of working times	1,4 - 90 s	1,4 - 90 s	1,4 - 90 s	1,4 - 90 s
Idle time	1 s	1 s	1 s	1 s
Spindle motor				
Nominal power output	22 kW	22 kW	22 kW	22 kW
Speed range of spindles	250 - 4 250 rpm		250 - 4 250 rpm	
Speed range STOP spindle	250 - 3 350 rpm		250 - 3 350 rpm	
Feed motor				
Nominal power output	8 kW	8 kW	8 kW	8 kW
Nominal torque	38 Nm	38 Nm	38 Nm	38 Nm
PLC	SIEMENS SIMATIC S7-15xx			
Drives	SIEMENS SIMATICS S120			
Machine dimensions				
Total length with bar stock guide	6 884 mm			
Total length w/o bar stock guide	4 520 mm			
Machine width	1 920 mm			
Machine height	2 570 mm			
Machine weight without bar stock guide	11 620 kg	11 880 kg	11 625 kg	11 885 kg
Machine electrical consumption				
Operational input of electrical equipment	37/45 kW/kVA			
Connecting cable cross section	5/35 mm^2	5/35 mm^2	5/35 mm^2	5/35 mm^2
Maximum current	160 A	160 A	160 A	160 A
Voltage	400/50 nebo 220/60 V/Hz			

DIMENSIONS OF THE MACHINE



The herein stated description and specification may not correspond with the latest model of the machine. ***9/2025***

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