SIX-SPINDLE AUTOMATIC LATHE

MORI-SAY 620AC





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Traditional cam automatic lathe of the high accuracy, rigidity and quickness. It is intended for the mass and series production of precise components from the bar stock.

CONSTRUCTION

Conception characteristics is the high accuracy and rigidity at machining 6 spindles 6 independent frontal slides 6 cross slides 4 compound slides in the $1^{\,st},\,2^{nd},\,4^{th}$ and 5^{th} stations Variable speed motors for machine speeds and feeds Hardened slide-ways of all slides Arrestment of the spindle drum by a triad of rims with spur gearing Display for programming and diagnostics of machine functions Absolute angular sensing device with programmable outputs Bar stock guide Work space lighting by fluorescent lamps Automatic two-circuit central lubrication Efficient device for swarf removal Quick-change disk cams for movements of frontal, cross and compound slides 4 safety clutches preventing from the slides

overloading



• Machine heart – spindle drum and central block of frontal slides

Quick-change operational cam





 Geneva mechanism of spindle drum indexing. By the cam alterable length of arm ensures the high dynamics of indexing.



 Tipping drive of working spindles enables an easy access to the interchangeable gear wheels of attachments and to the rocker arms of longitudinal and compound slides



 Back side of spindle drum with work spindles



 Arrangement of 6 independent cross slides



ADVANTAGES

Each frontal, cross and compound slide is controlled by an independent disk cam providing the possibility of the stroke adjustment on the rocker arm of the coresponding drive

Precise arrestment of the spindle drum is ensured by a triad of rims with spur gearing Mechanical control of the spindle drum arrestment

Possibility of the use of different types of automatic loaders and automatic magazines

Other mains voltage than 3 \times 400 V/50 Hz Possibility of the bar feeding and clamping in the 3 $^{\rm rd}$ station

Mounting of the bar stop in the 3rd station Mounting of the oriented stop of spindles Machine paint according to the customer's demand

Machine setting-up for a particular component of the customer

Various types of swarf conveyors Possibility of the connection to an

individual exhausting device or central exhausting system

Cams for cross and frontal slides are interchangeable

TECHNICAL DATA

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STANDARD EQUIPMENT

- Spindle drum locking by a triad of rims with spur gearing
- SIMODRIVE SIEMENS variable speed motors
- PLC SIEMENS SIMATIC programmable logic controller, S 7.300 model
- 6 cross slides and 6 frontal slides
- = 4 compound slides in the $1\,{}^{st}\!,\,2^{nd}\!,\,4^{th}$ and 5^{th} stations
- Standard bar stock guide
- Feeding, clamping and bar stop in the 6th station
- 4 safety clutches preventing from the slides overloading
- Independent drive of the central block

MACHINE VERSIONS

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 MORI-SAY 620SAC – machines with stop of spindles

OPTIONAL EQUIPMENT

- Feeding, clamping and bar stop in the 3rd station
- Device for the general stop of spindles 620SAC version
- Hydraulic oriented stop of spindles 620SAC version
- NC oriented stop of spindles 620SAC version
- Pick-up spindle with hydrauliccally controlled collet clamping
- Brake of the pick-up spindle
- Pick-up tool slide with a mechanical drive
- Tool holders
- Tapping and thread chasing attachments
- Thread rolling with two roller dies
- Attachment for outer polygon machining and thread milling
- Attachment for internal polygon machining
- Cams for frontal, cross and compound slides
- Necking-down attachment
- High-speed drilling attachment
- Rotary reaming attachment
- \blacksquare NC compound slides for the $4^{\mbox{\tiny th}}$ and $5^{\mbox{\tiny th}}$ stations
- Preparation for the automatic bar magazine
- Preparation for the oil mist exhaustion
- Selection of the equipment for swarfs carrying out and coolant in an independent sedimentation tank
- High-pressure coolant and tool wash-out
- Setting-up for a part machining and the machine acceptance in the TAJMAC-ZPS plant

| | | 620AC | 620SAC |
|---|--------|-------------|-------------|
| | | | |
| Number of spindles | | | 6 |
| Inner dia of clamping tube | ømm | 28 | 28 |
| Bar stock dimension | | | |
| Round cross section | Ø mm | 20 | 20 |
| Hexagonal cross section | mm | 17 | 17 |
| Square cross section | mm | 4 | 14 |
| Pitch diameter of spindles | mm | | 180 |
| Max. length of bar feeding | mm | | 100 |
| Frontal slides – number | | 6 | 6 |
| Range of working strokes I., II., IV. and V. | mm | 68 | 68 |
| Range of working strokes III., and VI. stations | mm | 90 | 90 |
| Cross slides – number | | 6 | 6 |
| Adjustability | mm | 13 | 13 |
| Range of working strokes | mm | 0 - 36 | 0 - 36 |
| Compound slides – number | | 4 | 4 |
| Range of working strokes I., II. | mm | 0 – 5 I | 0 – 5 I |
| Range of working strokes IV., V. | mm | 0 - 55 | 0 - 55 |
| Working cycle | | | |
| Working time | sec. | 0.8 - 90 | 0.8 - 90 |
| Idle time | sec. | 0.5 - 0.8 | 0.5 - 0.8 |
| Speed range of spindles | rpm | 500 - 6 500 | 500 - 4 500 |
| General stopping of spindles | | no | yes |
| Motors | | | |
| Spindle motor | kW | 9 | 9 |
| Feed motor (for working times) | kW | 7.5 | 7.5 |
| Machine operational input | KW/kVA | 19/21 | 19/21 |
| Machine dimensions | | | |
| Machine total length | | | |
| – with bar stock guide | mm | | 6 098 |
| – without bar stock guide | mm | | 3 000 |
| Width | mm | | 230 |
| Height | mm | | 2 197 |
| Machine weight including standard equipment | kg | | 5 000 |

Description, illustrations and numerical data may not always correspond with the machine latest version.

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