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# MANURHIN K'MX 632

Innovative technology



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## Innovative technology

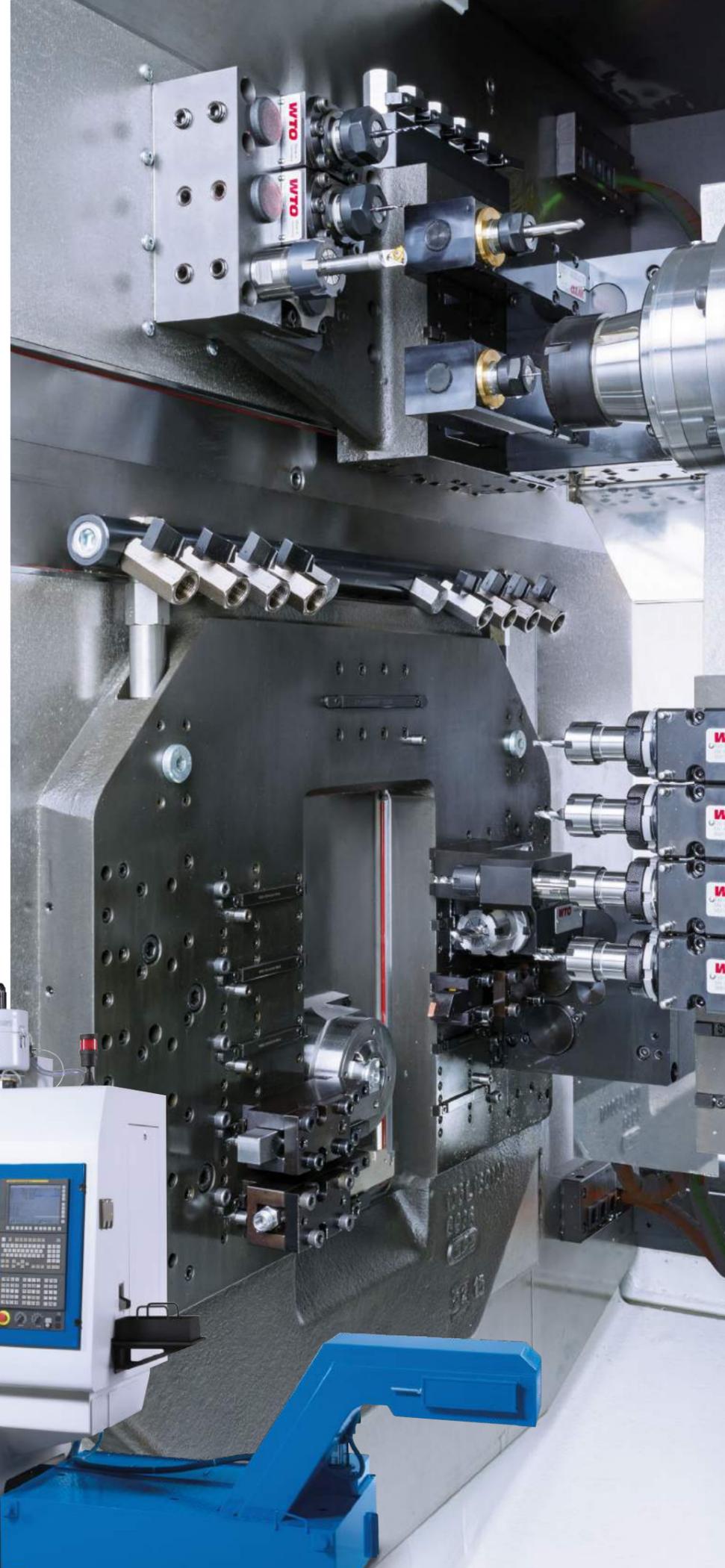
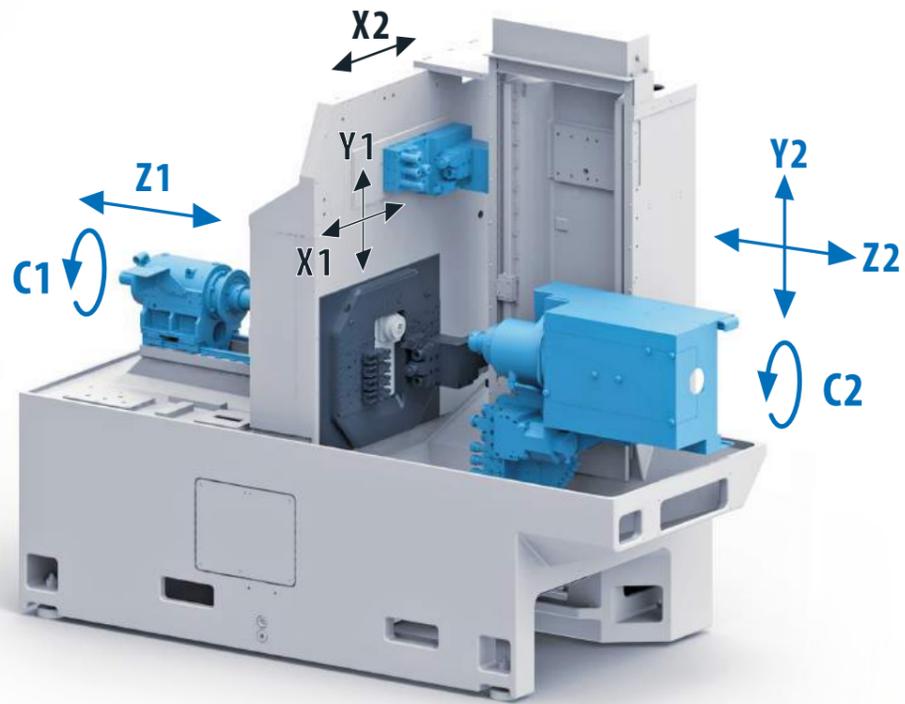
CNC Swiss automatic lathe MANURHIN K'MX 632 is used for productive machining of parts from the bar material of maximum diameter 32 mm. Because of spindle bore diameter 37mm there is no need to modify the end of the bar to smaller diameter for collet of bar feeder pusher.

The machine is in standard equipped by two electrospindles with maximum speed of 10 000 rpm and rotary guide bush, synchronized with main spindle by pulleys and belts. Six linear axes (X1, X2, Y1, Y2, Z1, Z2) and two rotary CNC axes (C1, C2) enable to machine productively simple or complex parts with two tools in

one time. The machine is also used if long drilling operations are required on main spindle. The stroke of the main spindle enables to use the machine for turning of shafts up to 400 mm on one clamping. Longer shafts are possible to be made with multiple clamping.

The parts over 160 mm long are possible to be evacuated from the machine only through the counter spindle. The easy setup of tools on tool rack enables the successful use of this machine for the batches starting by hundreds of pieces.

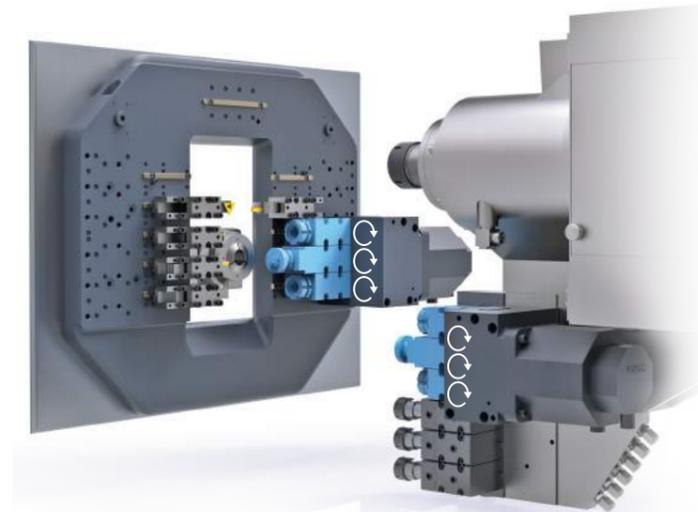
## KINEMATICS



# MANURHINKMX®

Design of machine construction enables deep drilling on main spindle as well as on counter spindle. Optionally it is possible to equip every tool rack by the gear box for live tools. Together with the machine we deliver automatic bar feeder with encoder and magazine for 3 or eventually 4m bars. The length of part is limited with this type of machine only by the length of the bar. Easy installation of tools on tool racks enables to use this machine successfully for the part batches starting from hundreds of pieces.

It is possible to install 9 tools on rear machining tool rack, 6 of them can be driven. Also long drills for very deep holes can be installed there. The designed solution of this machine enables to do all operations on this tool rack on counter spindle simultaneously with machining operations on main spindle.



## CONTROL SYSTEM FANUC

The latest CNC control system from Japanese manufacturer FANUC with color 10.4" screen enables to operator easy programming in ISO code. All operations are running in English (or other language if available). The transfer of programs is available comfortably via USB, PCMCIA card, RS 232 interface or Ethernet.



## MACHINE PARAMETERS

|   |                 |   |                          |
|---|-----------------|---|--------------------------|
| Maximum bar diameter – main spindle       | Ø 32 (*Ø 36) mm | Tool rack stroke Z2                               | 260 mm                   |
| Maximum length of machining on one stroke | 400 mm          | Rapid feed Z2                                     | 30 m/min                 |
| Spindle bore                              | Ø 37 mm         | Maximum diameter of bar – counter spindle         | Ø 32 (*Ø 36) mm          |
| Power on main spindle motor (100% / 60%)  | 5,5 / 7,5 kW    | Maximum length of part inside the counter spindle | 160 mm                   |
| Maximum speed of main spindle             | 10 000 rpm      | Maximum length of part for frontal ejection       | 160 mm                   |
| Spindle indexing orientation              | left and right  | Counter spindle bore                              | Ø 37 mm                  |
| Main spindle stroke Z1                    | 410 mm          | Maximum spindle speed                             | 10 000 rpm               |
| Rapid feed of main spindle                | 30 m/min        | Power of secondary spindle motor (100% / 60%)     | 3,7 / 5,5 kW             |
| Number of tool racks                      | 1               | Air pressure                                      | 6 bar                    |
| Tool rack stroke X1                       | 80 mm           | Tank capacity                                     | 300 l                    |
| Rapid feed X1                             | 30 m/min        | Flow rate   | 100 l/min                |
| Tool rack stroke Y1                       | 191 mm          | Coolant pump pressure                             | 5,5 bar                  |
| Rapid feed Y1                             | 30 m/min        | Voltage   | 3 x 400 V – 50 Hz        |
| Number of tools                           | (2 x 5) : 10    | Power   | 32 kVA                   |
| Size of OD tool                           | 16 x 16 mm      |   |                          |
| Tool rack stroke X2                       | 145 mm          | MACHINE DIMENSIONS                                | 3 000 x 1 460 x 2 220 mm |
| Number of tools                           | (6 + 3) : 9     | MACHINE WEIGHT                                    | 4 900 kg                 |
| Tool rack stroke Y2                       | 650 mm          |   |                          |
| Rapid feed Y2                             | 30 m/min        |   |                          |
| Number of tools                           | 6               |   |                          |

\* optional modification on request

## COLLETS AND GUIDE BUSHES

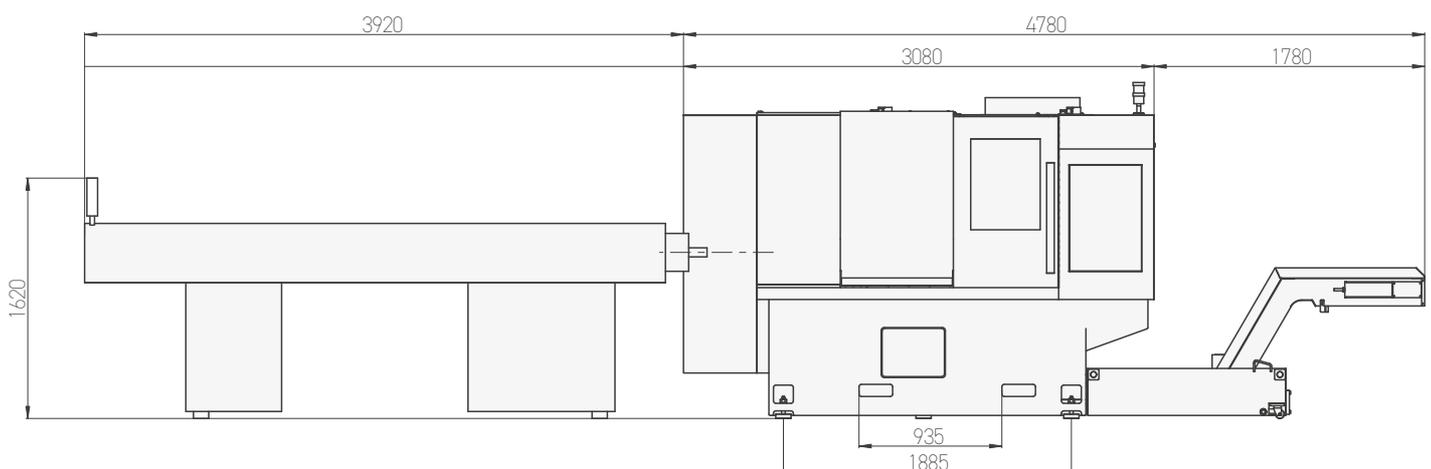


On MANURHIN K'MX 632 we use for both main and counter spindle the collets of type 164E (F38) and we recommend steel ultra-precision collets manufacturers. Usually are used grooved collets or smooth collets or collets with longer nose (LN)



On MANURHIN K'MX 632 we use the guide bushes of type T229 denomination. We recommend the guide bushes with hard metal insert from renowned manufacturers.

## MACHINE DIMENSIONS



## CONTACT

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Specifications and illustrations may not always correspond with the machine latest version.