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MANURHIN K'MX 432

Innovative technology



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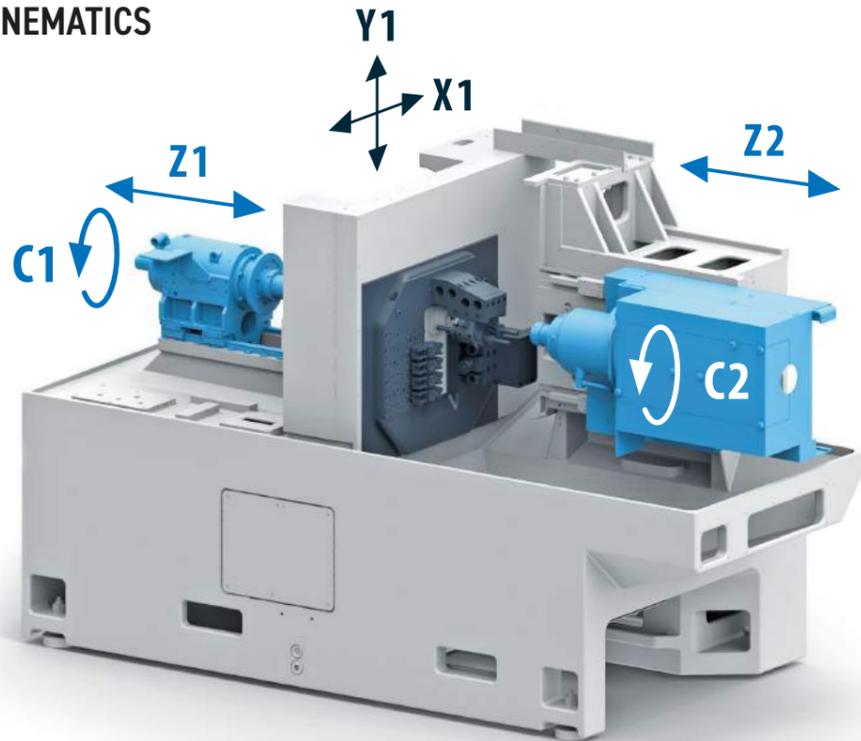
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Sliding headstock automatic lathe MANURHIN K'MX 432 is designed for productive machining of parts from the bars of maximum diameter 32 mm. As the spindle bore diameter is 37 mm, there is no modification of the end of the bar for bar feeder collet needed.



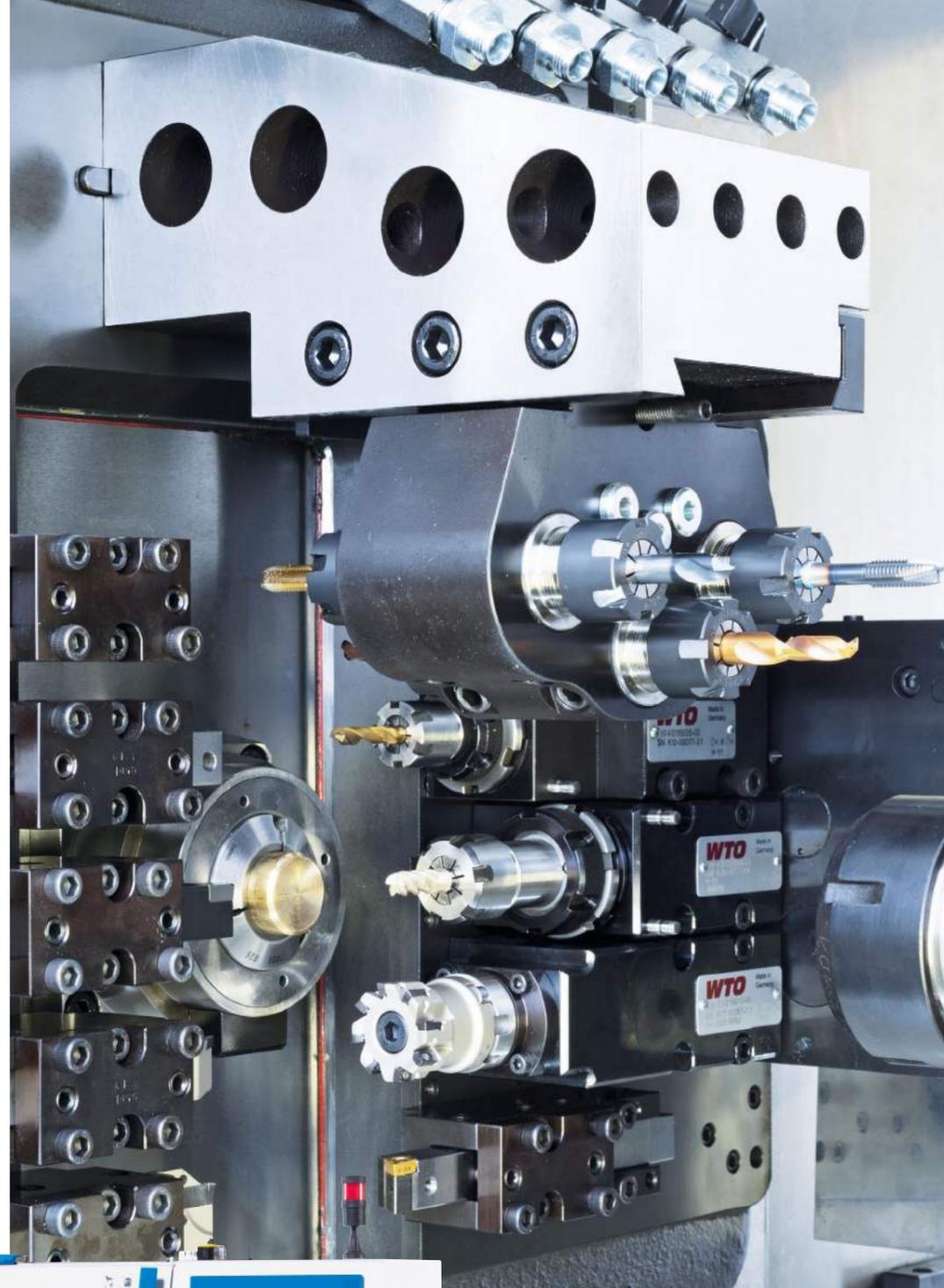
Machine is equipped in standard with two electro spindles with maximum speed 10 000 rpm each and with rotary guide bush synchronized by pulleys and belts with main spindle. Four linear CNC axes (X1, Y1, Z1, Z2) and two rotary axes (C1, C2) enable to machine with high productivity the simple as well as complex parts.

KINEMATICS



SPINDLE BRAKES

Electro spindles are in standard equipped by electro-magnetic brake, which could be not always sufficient enough in relation to powerful drilling or milling by motorized tools. Because of this reason we recommend to use optional jaw brakes with wheel, which firmly fix the spindles in their position.

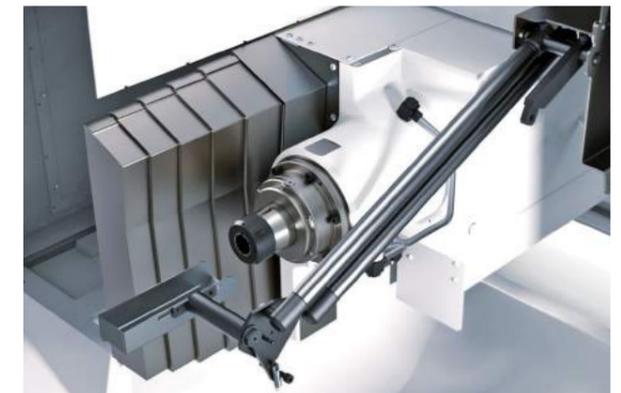


Optionally the machine can be equipped with motorized tools on rear or frontal part of the tool rack. The stroke of the main spindle enables to use the machine for turning of shafts up to 400 mm on one clamping. Longer shafts are possible to be made with multiple clamping.

The easy setup of tools on tool rack enables the successful use of this machine for the batches starting by hundreds of pieces.

CONTROL SYSTEM FANUC

The latest CNC control system from Japanese company Fanuc with color 10,4" monitor enables to operator easy programming in ISO code. All screens are possible to be switched into requested languages. Transfer of part programs from the PC is possible to be done by USB, by PCMCIA card, by RS232 interface or by Ethernet.



PART COLLECTION AND EVACUATION

Pneumatically controlled arm with bucket is operated by M-function. The arm is easy to set up and enables the parts catching from both main and counter spindle, just as needed by operator. The bucket fits for the parts up to 170 mm. Longer parts are possible to be evacuated through the counter spindle. The bucket can be modified according to shape of part.

The part is evacuated by arm with bucket outside the covers of the machine. This enables immediate manipulation with the part and immediate measuring without the need to stop the machine.



**Live Tools power 2,3 kW
+ Gearbox 32 Nm torque**



MACHINE PARAMETERS

Maximum bar diameter – main spindle	Ø 32 (*Ø 36) mm	Maximum length of part for frontal ejection	170 mm
Maximum length of turning on one stroke	400 mm	Counter spindle bore	Ø 37 mm
Main spindle bore	Ø 37 mm	Maximum speed of counter spindle	10 000 rpm
Power (100% / 25%) of main spindle	5,5 / 7,5 kW	Power (100% / 30 min) of counter spindle	3,7 / 5,5 kW
Maximum speed of main spindle	10 000 rpm	Evacuation of parts through the counter spindle (for parts max. Ø 26 mm)	Optional
Spindle direction	Left and right	Air pressure required	6 bar
Main spindle stroke	410 mm	Air connection by "Banjo" coupling	Ø 10 mm
Rapid feed of main spindle	30 m/min	Coolant tank capacity	300 l
Number of tool racks	1	Flowrate	100 l/min
Tool rack – horizontal stroke X1	80 mm	Coolant pump pressure	5,5 bar
Rapid feed of horizontal stroke	30 m/min	Voltage	3 x 400 V – 50 Hz
Tool rack – vertical stroke Y1	191 mm	Power input	32 kVA
Rapid feed of vertical stroke	30 m/min	Cable section	16 mm ²
Tool positions (turning)	(2 x 5) : 10	CNC control system	FANUC
Tools shank size OD operations	16 x 16 mm	MACHINE DIMENSIONS	3 000 x 1 460 x 1 860 mm
Counter spindle stroke	300 mm	MACHINE WEIGHT	4 500 kg
Rapid feed of counter spindle	30 m/min		
Maximum bar diameter – counter spindle	Ø 32 (*Ø 36) mm		
Maximum length of part inside the counter spindle for frontal ejection	150 mm		

* optional modification on request

COLLETS AND GUIDE BUSHES

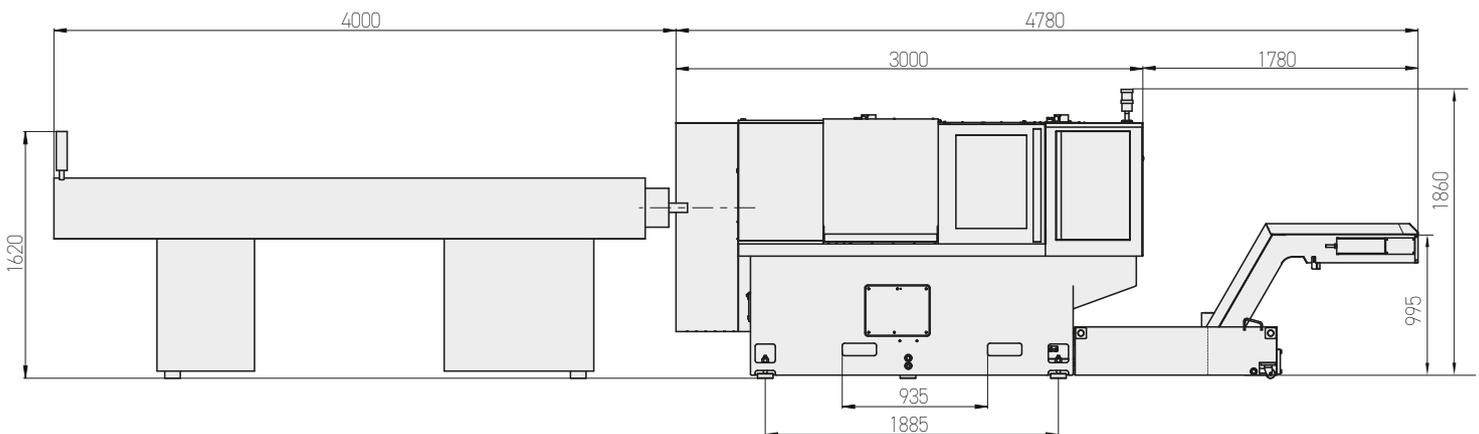


On MANURHIN K'MX 432 we use for both main and counter spindle the collets of type 164E (F38) and we recommend steel ultra-precision collets from well-established collets manufacturers. Usually are used grooved collets or smooth collets or collets with longer nose (LN)



On MANURHIN K'MX 432 we use the guide bushes of type T229 denomination. We recommend the guide bushes with hard metal insert from renowned manufacturers.

MACHINE DIMENSIONS



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