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MANURHIN K'MX 432

Innovative technology



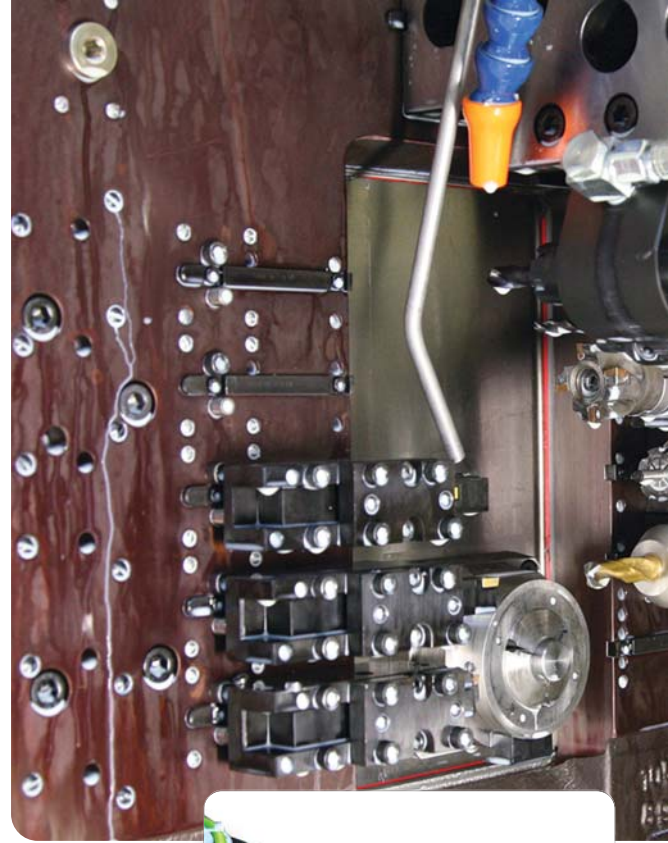
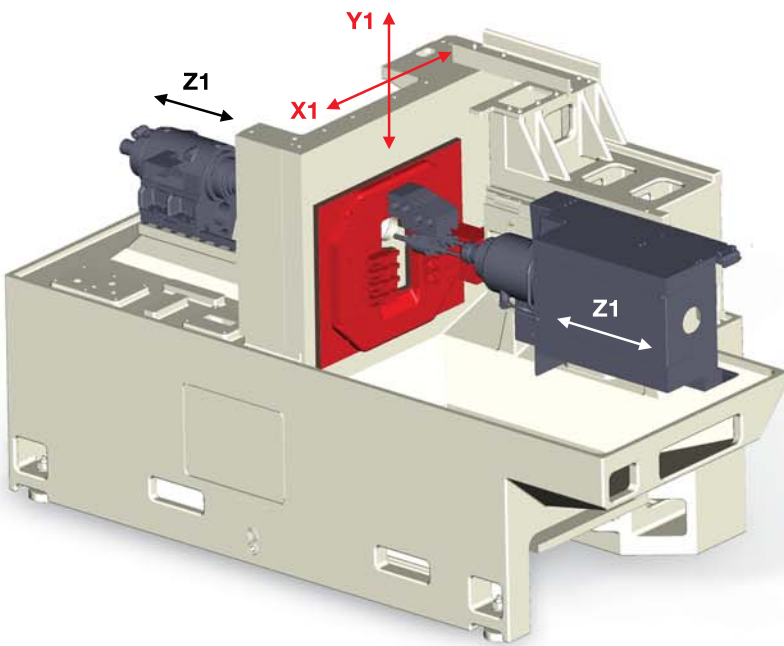
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Sliding headstock automatic lathe MANURHIN K'MX 432 is designed for productive machining of parts from the bars of maximum diameter 32 mm. As the spindle bore diameter is 37 mm, there is no modification of the end of the bar for bar feeder collet needed.

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 axes (X1, Y1, Z1, Z2) two rotary axes (C1, C2) enable to machine with high productivity the simple as well as complex parts.

KINEMATICS



FANUC 31 i

The latest CNC control system from Japanese company Fanuc with colour 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 can be done by PCMCIA card by RS232 interface or ethernet.

Pressured air

Manurhin K'MX 432 requests the pressure of 6 bars and the one-off flow of 330l/min for the function of secondary spindle collet air blowing. Pressured air controls for example clamping, parts catching or bar feeding.

Lubrication

Linear guideways are lubricated automatically by dispenser. Easy maintenance is guaranteed by free access to lubrication tank in the rear side of the machine.

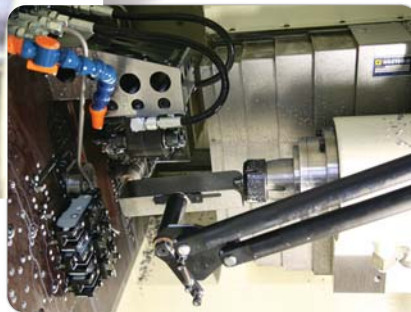




Optionally the machine can be equipped with motorized tools on rear or frontal part of the tool rack. The stroke of the main spindle enables to use the machine for turning of shafts up to 400 mm on one clamping. Longer shafts are possible to be made with multiple clamping.

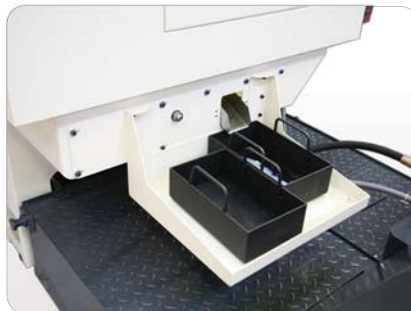
Manurhin KMX 432 is delivered with automatic bar feeder with encoder and magazine for 3M bars. The parts over 170 mm long are possible to be evacuated from the machine only through the sub spindle. The maximum length of the part is limited theoretically only by the length of the bar.

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



Part collection

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 sub 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 sub spindle. Bucket can be modified according to shape of part.



Part evacuation

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.

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.

Chip conveyor

We offer universal belt conveyor for common metallic chips, eventually can be used shovel type for small chips like from brass. Proper choice of chip conveyor can simplify the operation and maintenance of the machine. Chip conveyor consists of coolant tank and coolant pump.



MACHINE PARAMETERS

Maximal bar diameter – main spindle	Ø 32 mm	Maximal length of part inside the secondary spindle for frontal ejection	150 mm
Maximum length of turning on one stroke	400 mm	Maximal length of part for frontal ejection	170 mm
Spindle bore	Ø 37 mm	Secondary spindle bore	Ø 37 mm
Power (100/40%) main spindle	3,7 / 5,5 KW	Maximal speed of sub spindle	10000 rpm
Maximal speed	10000 rpm	Power (100/40%) secondary spindle	3,7 / 5,5 KW
Indexing direction	left and right	Evacuation of parts through the sub spindle (for parts max Ø 26 mm)	Optional
Main spindle stroke	410 mm	Air Pressure	6 bars
Rapid feed	30 m/min	Air connection	Ø 10 mm
Number of tool racks	1	Coolant tank	300 l
Tool rack – horizontal stroke	80 mm	Flow	100 l / min
Rapid feed	30 m/min	Coolant pump pressure	7 bars
Tool rack – vertical stroke	191 mm	Voltage	3 x 400 V - 50 Hz
Rapid feed	30 m/min	Power Input	32 kVA
Tool positions (turning)	(2 x 5) : 10	Cable section	16 mm ²
Tool shank	16 x 16 mm	Circuit breakers, fuse	63 A
Secondary spindle stroke	260 mm		
Rapid feed	30 m/min		
Maximal bar diameter - sub spindle	Ø 32 mm		
		MACHINE DIMENSIONS	3000x1370x2200 mm
		MACHINE WEIGHT	4200 kg

Collets and Guide bushes

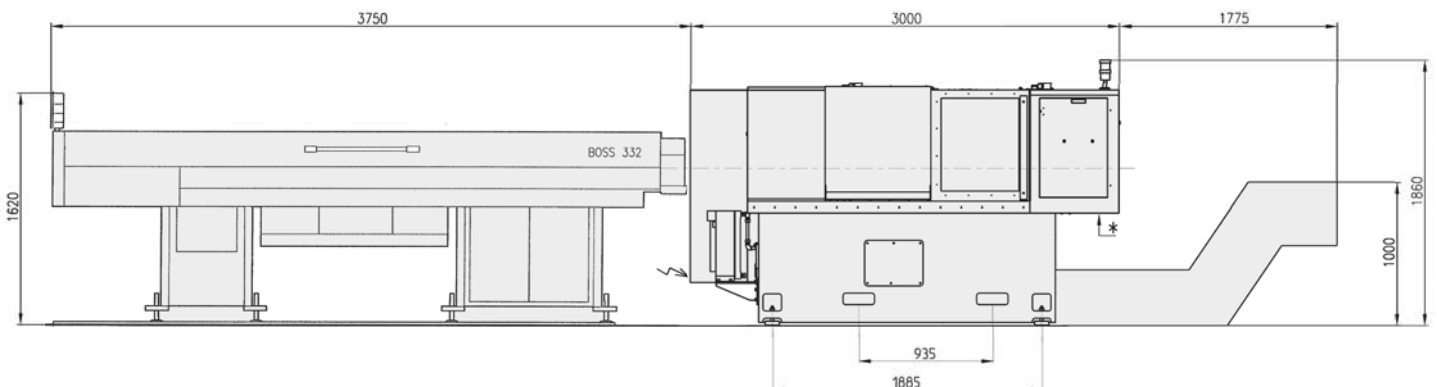


On Manurhin K'MX 432 we use for both main and sub spindle the collets of type 164E (F38) and we recommend steel ultra-precision collets from well-established collet manufacturers. Usually are used grooved collets or smooth collets or collets with longer nose.



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

Machine Dimensions



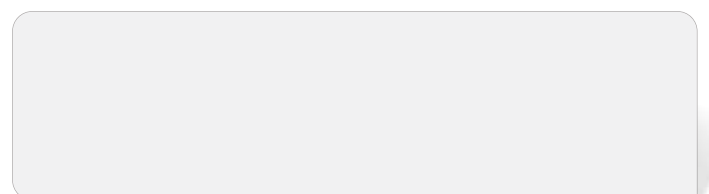
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Specifications and illustrations may not always correspond with the machine latest version.