

# MANURHIN K'MX 413

Innovative technology

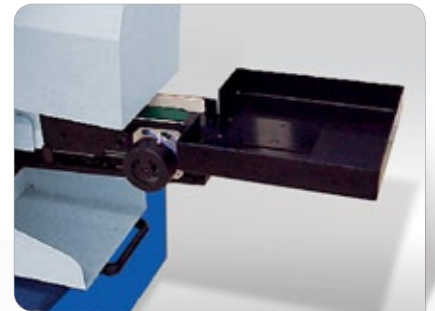
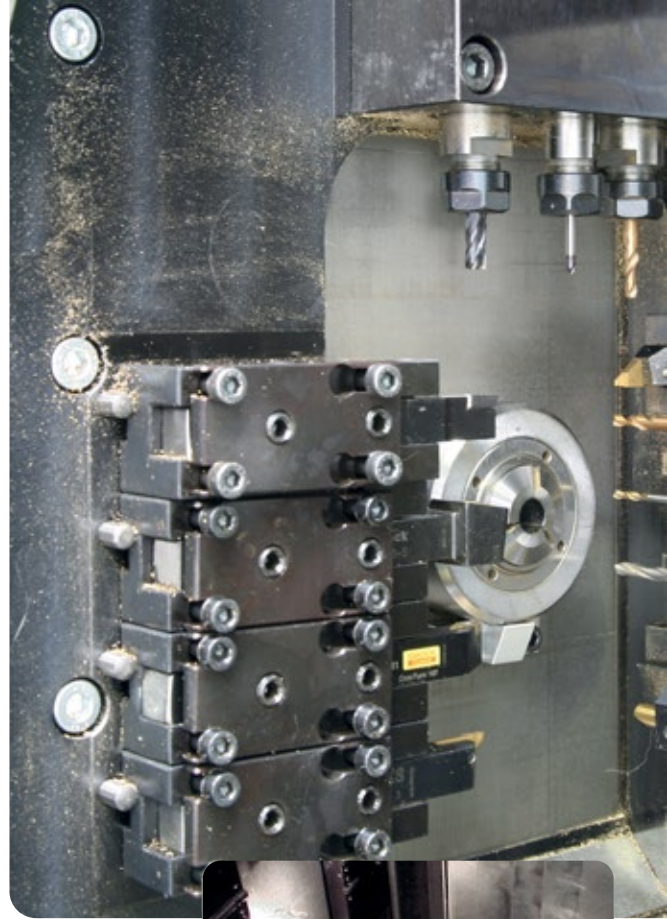
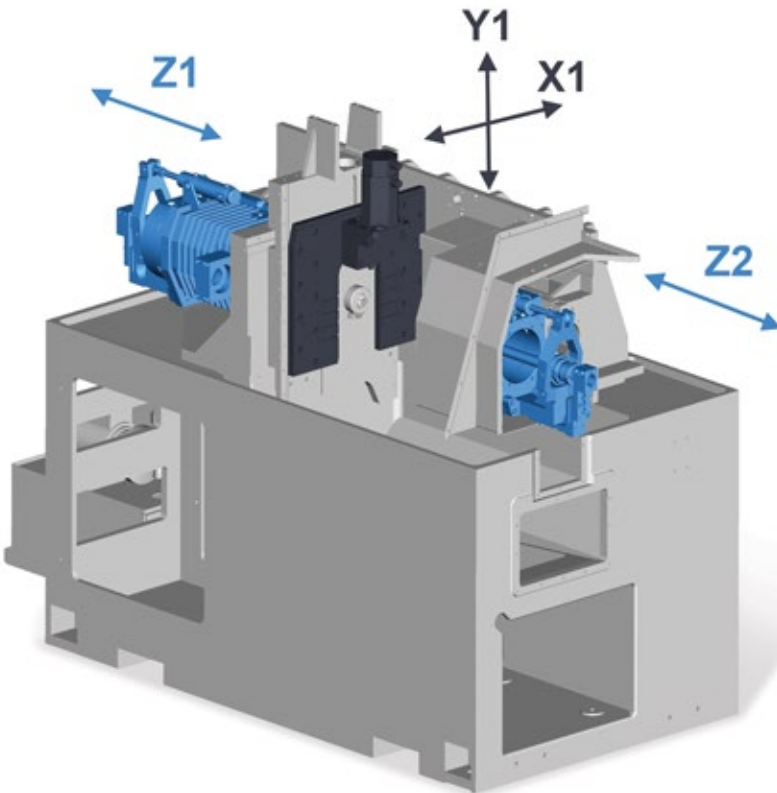


# MANURHIN K'MX 413

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Sliding headstock MANURHIN K'MX 413 is designed for productive machining of small parts for bars diameter up to 16mm (for machining bigger diameter than 13mm it is necessary to adjust end of the bar or optionally it is possible to modify spindle boring to 16mm diameter). K'MX 413 in standard offer is supplied as fully equipped machine ready to start production.

## KINEMATICS



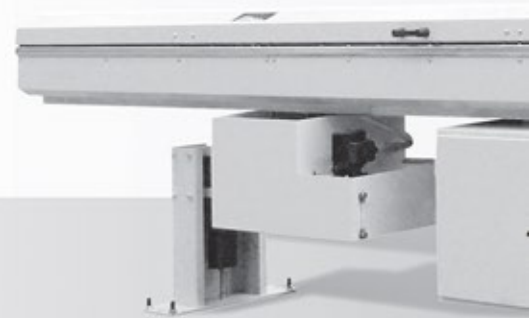
## FANUC Series Oi - TD

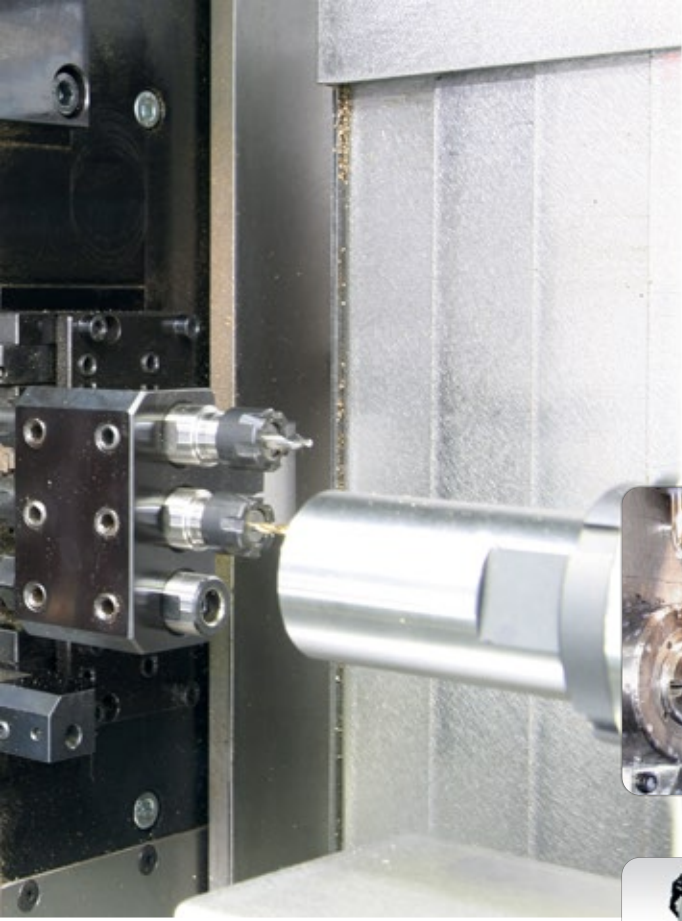
The latest CNC control system from Japanese company FANUC with color 7,2" monitor enables to operator easy programming in ISO code. All screens are possible to be switched into requested languages. Transfer of part programs from the PC is possible to be done by USB, PCMCIA card or by RS232 interface.



## LUBRICATION

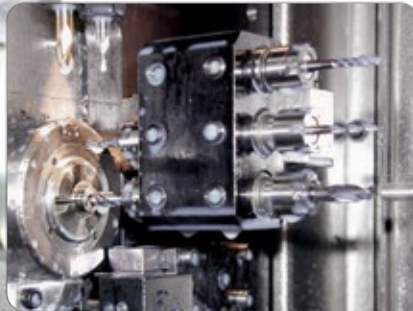
Linear guide-ways are lubricated automatically by dispenser. Easy maintenance is guaranteed by free access of lubrication tank in the rear side of the machine.





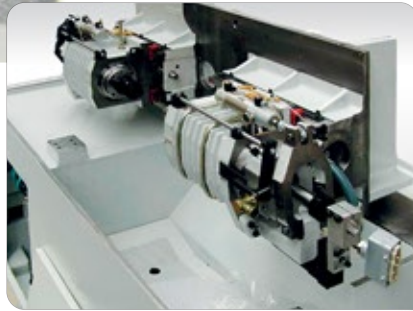
Standard offer from others includes sub-spindle, life tools and bar-feeder. Simple kinematics and last generation of CNC are providing easy and fast programming.

With 2 electrospindles, 3 powered tools, C-axis, and up to 12 fixed tools, the K'MX 413 is also able to run sophisticated parts. With this machine, TAJMAC-ZPS a.s. wants to offer an economical, reliable and easy solution.



## TOOLS FOR INTERNAL MACHINING

the cutting tools are installed on a toolholder block with 6 stations (boring  $\varnothing$  16 mm). This block occupies two positions on rack and allows simultaneous operations in center on both spindles.



## CASTING

Rigid casting provides optimal conditions for machining. Main and sub spindle are two electrospindles for bars of maximum diameter 16mm. Maximum spindle speed 12000 rpm. Both spindles are equipped with clamping system for collets F20.

## PART COLLECTION

A part catcher programmable by 'M' function receives the finished part ejected from the sub spindle. Then, the part slips into a drawer on the right side of the machine. The chips are separated from the coolant and evacuated into large tank on the right side of the machine.

## CONVEYOR BELT

In the case of need to continuous check for evaluate of statistics we recommend to use conveyor belt. In standard accessories is machine with collection box.



# MACHINE PARAMETERS

## Main spindle

Max. machining length on one feeding	130 mm
Spindle bore	Ø 17 (19) mm
Bar capacity	Ø 13 (16) mm
Maximum bar capacity	Ø 16 mm
Power of electrospindle motor	(100/60%) 3,7/5,5 kW
Maximum spindle speed	12000 rpm
Spindle direction	left and right
Sliding headstock stroke	130 mm
Rapid feed	25 m/min
Horizontal stroke of slide	2×30 mm
Rapid feed	25 m/min
Vertical stroke of slide	135 mm
Rapid feed	25 m/min
Number of external tool stations	(max.) 8
Tools shank size OD operations	12×12 mm
Number of internal tool stations	(max.) 3
Boring for ID tool shank	Ø 16 mm
Number of powered tools	3
Collet size	ER 11/ ET 1–12
Maximum speed on 2 stations	8000 ot/min
Maximum speed on 1 stations	2600 ot/min

## Subspindle

Stroke of longitudinal slide	150 mm
Rapid feed	25 m/min
Bar capacity	Ø 13 mm
Maximum bar capacity	Ø 16 mm
Maximum subspindle speed	12000 rpm
Power of electrospindle motor	(100/60%) 2,2/3,7 kW
Maximum length of part inside the spindle	95 mm
Maximum length of part for frontal ejection	130 mm
Evacuation of part through sub spindle	option
Air pressure required	6 bar
Connection by "Banjo" coupling	Ø 10 mm
Tank capacity	120 l
Flowrate	63 l/min
Pressure	2 bar
Voltage	3×400 V – 50 Hz
Total absorbed power	21 kVA
Fuses for circuit	32 A
Dimensions	1990×1050×1700 mm
Weight	2000 kg

## COLLETS AND GUIDE BUSHES

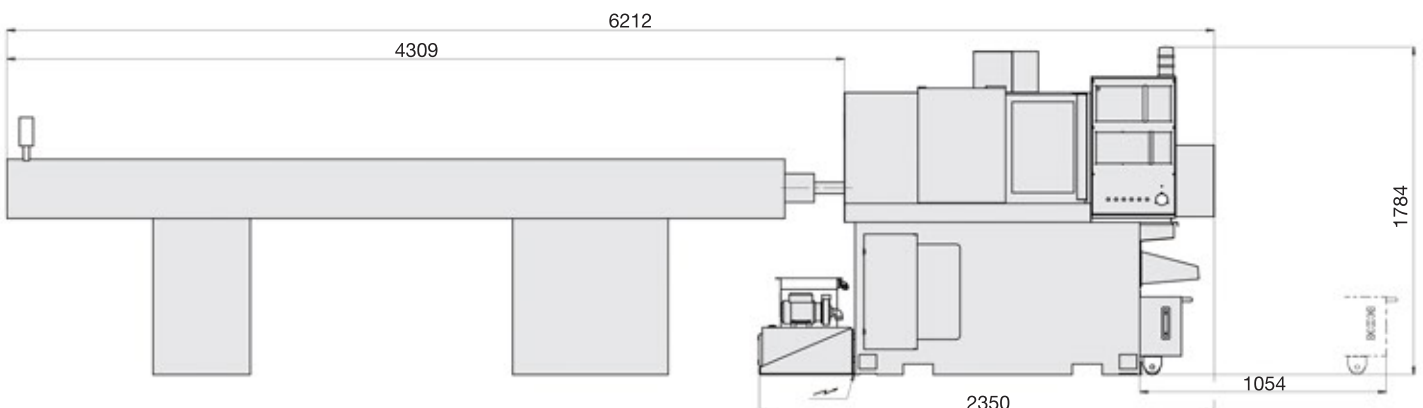


On Manurhin K'MX 413 we use the guide bushes of I 354 (J7A) denomination. We recommend the guide bushes with hard metal insert from renown manufacturers.



On Manurhin K'MX 413 we use for both main and sub spindle the collets of type 136E (F20) 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 (LN).

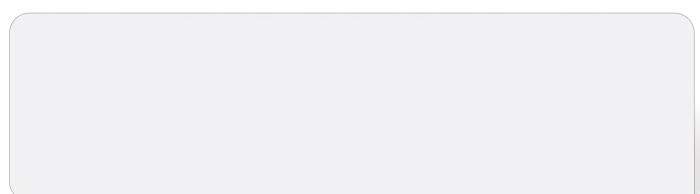
## MACHINE DIMENSIONS



## CONTACT



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