MANURHIN K´MX

726 EVO / 732 EVO

SWISS TYPE, SLIDING HEADSTOCK LATHES

HIGHLIGHTS

1 With bar capacities of 26 mm (model 726 EVO) and 32 mm (model 732 EVO), the CNC sliding headstock lathes of the K´MX EVO range are ideal for the machining of parts of complex design. An automatic bar loader capable of handling bars up to 3 meters long is part of the standard configuration of these machines.

2 The most relevant characteristic of the lathes of this range is that they are fitted with oil-cooled electro-spindles (spindles with built-in motors) with a power output of up to 10.5 kW and with two compound slides which can be used simultaneously for distinct machining operations (i.e. roughing and finishing). The compound slides can also be equipped with optional driven tools allowing the simultaneous performance of operations such as drilling and milling.

3 The machining capabilities are enhanced by the fact that it is possible to install frontal units for I.D. machining capable of operating simultaneously on parts carried by the main spindle or the pick-up spindle. It is also possible to install driven tools capable of operating in both directions.

4 The large working area allows for easy removal of chips and provides excellent ease of access.

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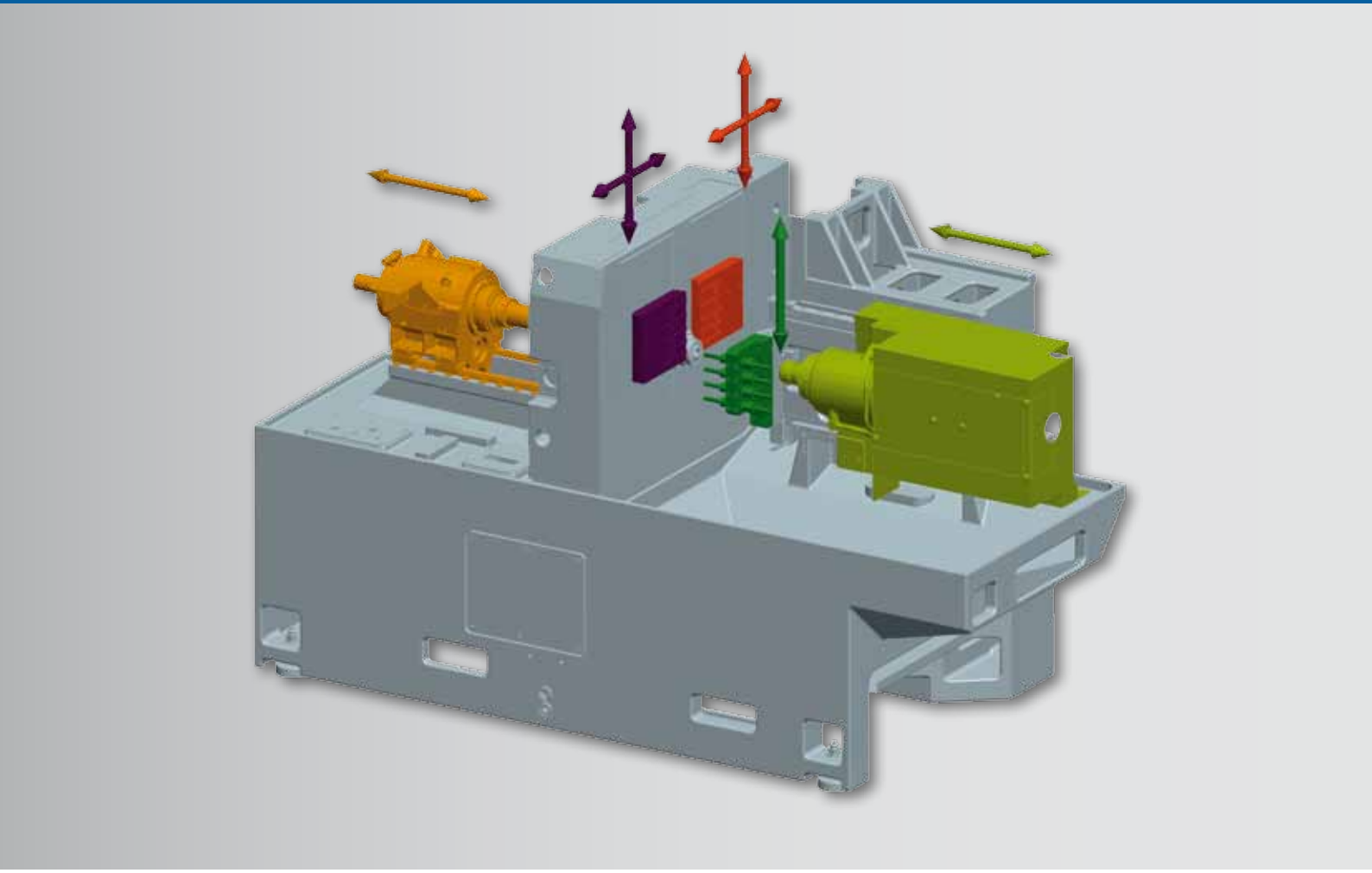
KINEMATICS



MAIN SPINDLE

The I.D. of the draw tube being equal to 33 mm (model 726) or 37 mm (model 732), bars with O.D. up to 26 mm (or 32 mm) can be loaded without requiring any special preparation.

The maximum speed of the spindle is 8.000 RPM and the movement is transmitted to the headstock by means of toothed belts. The high power output of the spindle (up to 10.5 kW) allows fast machining of the hardest materials.

OTHER OUTSTANDING CHARACTERISTICS

The compact cast iron structure of the machine formed by only three components assures very high frame rigidity and thermal stability and provides optimum machining conditions. Parts up to 200 mm long are ejected towards the working area. Longer parts can optionally be made to pass through the pick-up spindle before removal.

The stroke of the headstock (380 mm with model 726 EVO, 365 mm with model 732), allows full machining of parts up to this length without additional bar feeds. These are possible, in any case, when longer parts are machined.

TECHNOLOGY

WORKING AREA

The removal of chips and of completed parts and the installation and replacement of tools and accessories are facilitated by the excellent ease of access provided by the large working area.

FRONTAL STANDARD TOOL RACK

A tool rack with 2 x 4 stations makes it possible to perform distinct frontal operations simultaneously (i.e. centering, drilling or tapping) on parts carried by the main spindle or the pick-up spindle.

FAST-REPLACEMENT TOOL-HOLDERS

The use of fast-replacement tool-holders designed in accordance with the MANURHIN standards allows easy and fast installation and replacement of tools thus making tool management more efficient.

DRIVEN SIDE TOOL-HOLDERS

Both compound slides can be optionally equipped with up to three driven tool-holders. In addition to the standard drilling and milling tool-holders, special driven tool-holders for polygon generating and thread milling are available.

REMOVAL OF PARTS

The lathes of the KM´X EVO range are equipped with a CNC controlled air-driven arm which can grab and evacuate parts up to 200 mm long either carried by the main spindle or the pick-up spindle.

DRIVEN FRONTAL TOOL-HOLDERS

The frontal tool rack can be equipped with up to 2 x 3 optional driven tool-holders. Several different combinations are possible and the same station can host one driven tool-holder machining the part carried by the main spindle and one static holder machining the part carried by the pick-up spindle or vice versa. The performances of the frontal tools can be improved by installing optional internal cooling systems, either standard or high-pressure. Synchro rotating fluid flow mechanisms provide internal high pressure cooling of driven tools.

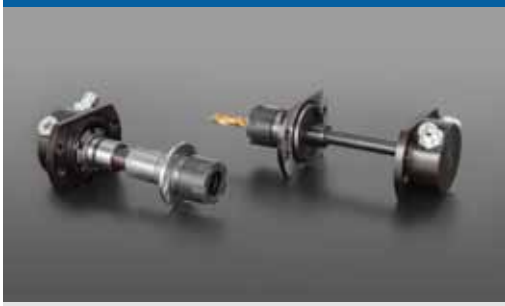
FRONTAL TOOL-HOLDERS

The frontal driven tool-holders are installed simply by screwing them into their lodgments. No belts or other special transmission systems are required. The maximum speed is 8.000 RPM.

STATIC FRONTAL TOOL-HOLDERS

Static frontal tool-holders can be installed in any station of the rack, including stations designed for accommodating driven tools. This makes it possible to install a driven tool for machining the part carried by the main spindle and a static tool for machining the part carried by the pick-up spindle (or vice versa) in the same station. The tool-holders accommodate standard ER 20 collets.

INTERNAL TOOL COOLING



The optional internal tool cooling system includes a fluid flow unit which can direct the cooling fluid in both directions (towards the main or the pick-up spindle). The option, thanks to a synchro rotating fluid flow mechanisms, can be used also with driven tool-holders.

TECHNICAL SPECIFICATIONS

		726 EVO	732 EVO
MAIN SPINDLE	Bar capacity	Ø 26 mm	Ø 32 mm
	Internal diameter of draw tube	Ø 33 mm	Ø 37 mm
	Power (100/40 %)	7.5/10.5 kW	7.5/10.5 kW
	Max speed	8.000 RPM	8.000 RPM
SLIDING HEADSTOCK	Stroke	380 mm	365 mm
PICK-UP SPINDLE	Bar capacity	Ø 26 mm	Ø 32 mm
	Internal diameter of draw tube	Ø 33 mm	Ø 37 mm
	Power (100/40 %)	3.7/5.5 kW	3.7/5.5 kW
	Maximum speed	8.000 RPM	8.000 RPM
	Max. length of part inside the spindle	150 mm	150 mm
	Max. length of part for front ejection	200 mm	200 mm
COMPOUND SLIDES	Number of compound slides	2	2
	Radial stroke (X)	45 mm	45 mm
	Vertical stroke (Y)	180 mm	180 mm
	Number of stations	2 x 5	2 x 5
	Tool shank section	16 x 16 mm	16 x 16 mm
FRONTAL TOOL RACK	Number of racks	1	1
	Vertical stroke (Y)	260 mm	260 mm
	Number of stations	2 x 4	2 x 4
	Collets type	ER 20	ER 20
COOLING FLUID	Tank capacity	300 litres	300 litres
	Flow	30 l/min	30 l/min
	Pressure	4 bar	4 bar
CNC SYSTEM	Supplier	Fanuc	Fanuc
SIZES AND WEIGHT (BAR LOADER AND CHIPS CONVEYOR NOT INCLUDED)	Length	3.000 m	3.000 m
	Width	1.400 m	1.400 m
	Height	1.600 m	1.600 m
	Weight	4.350 kg	4.350 kg

OPTIONS

- Powered tools
- Long part evacuation device
- High pressure cooling
- Oil mist abating system
- Fire prevention system
- Chip conveyor
- C-axis on main spindle and pick-up spindle
- Pneumatic guide bush device

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