

New

# K'MX 726/732 EVO



# Introduction

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The new K'MX 726/32 EVO with 7 axis is designed for machining of parts from bars up to  $\varnothing$  32 mm.

The K'MX 726 EVO and K'MX 732 EVO always incl. loading magazine offered.

Options, such as "power-driven tools", "long parts device", or "C axis" round off the flexibility of this series.

A clear arrangement of the axis, ergonomic and easy access, and a simple, fast programming allow to use for small, medium and large series.

Two motor spindles, up to 10 turning tools, 8 drilling tools and up to 12 rotating tools, allow the machining also of complex workpieces.

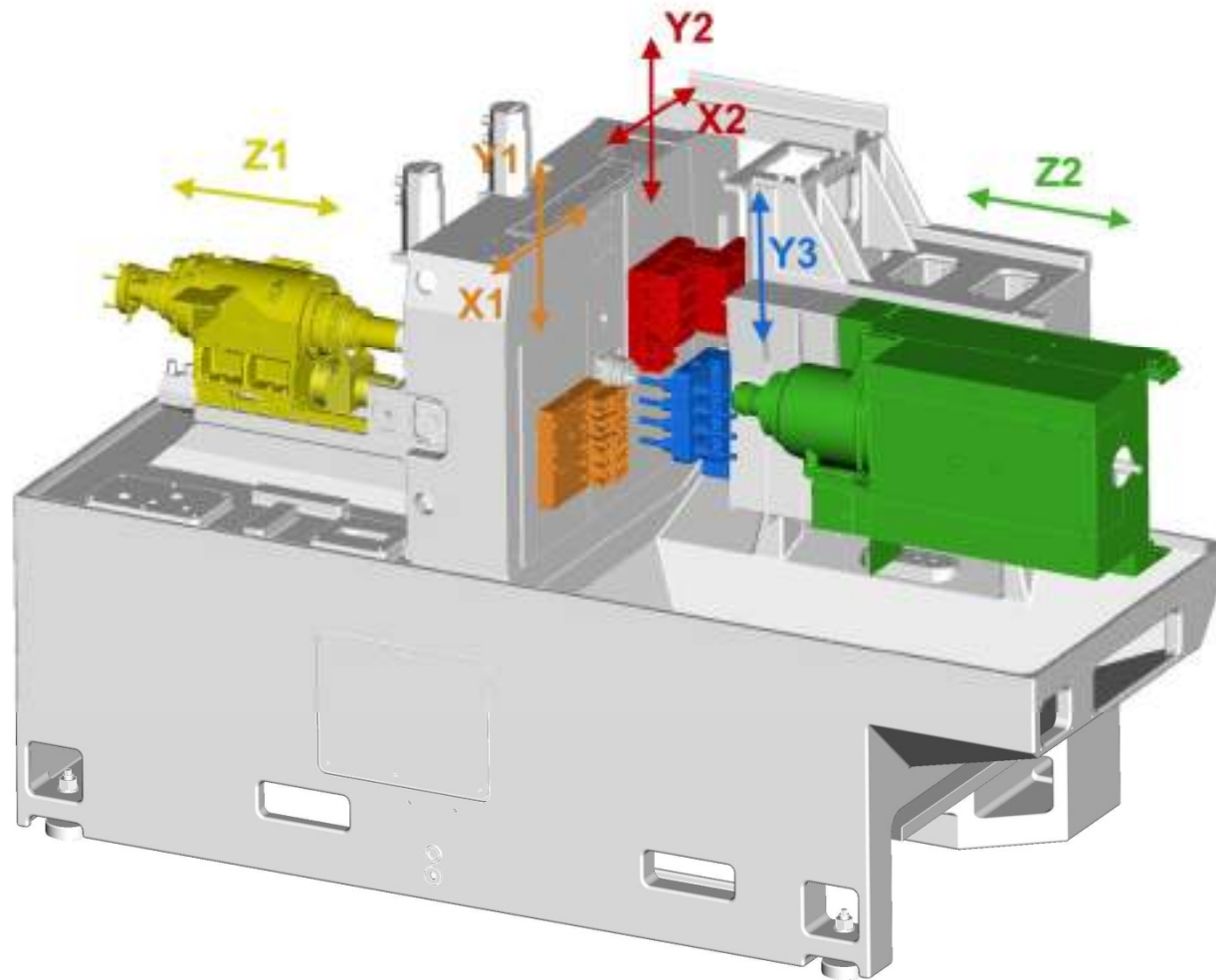
# Cast-iron framework

The cast-iron framework insures optimal and rigid conditions for machining operations.



It follows a good vibration damping and a longer life time of cutting tools.

# Cinematic K'MX 732 EVO

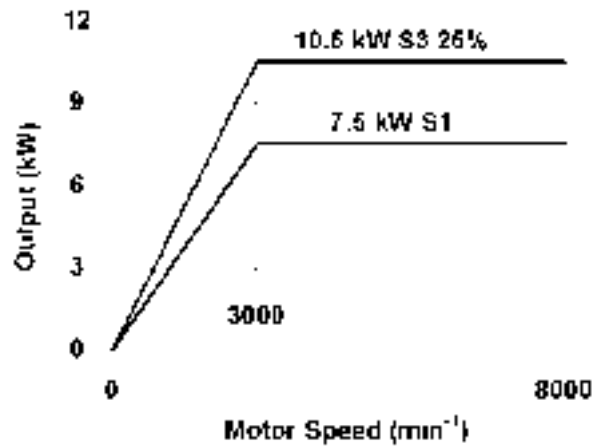


# Technical Data K'MX 732 EVO

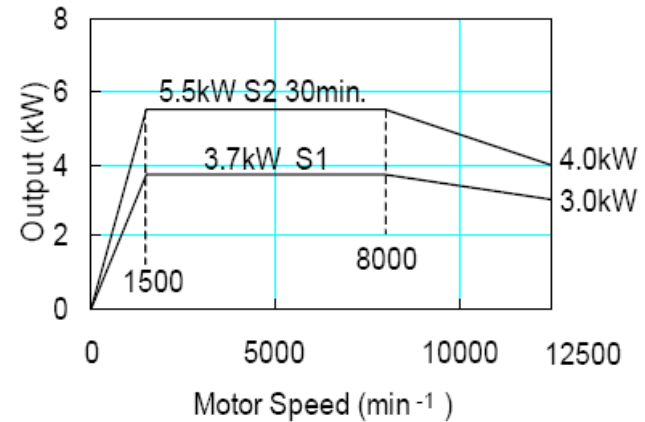


	Ø 26	Ø 32
<b>Main spindle and sliding headstock</b>		
Max. bar capacity	Ø 26 mm	Ø 32 mm
Stroke	390 mm	365 mm
Spindle bore	Ø 33 mm	Ø 37 mm
Power A.C motor (100 / 40%)	7,5/10,5 kW	7,5 / 10,5 kW
Max. speed of electro spindle (rpm)	8000	8000
Rapid feed	30 m/min	30 m/min
<b>Sub spindle</b>		
Max. bar capacity	Ø 26 mm	Ø 32 mm
Spindle bore	Ø 33 mm	Ø 37 mm
Max. speed of electro spindle (rpm)	8 000	8 000
Power A.C motor (100 / 40%)	3,7 / 5,5 KW	3,7 / 5,5 KW
Max. length of part inside spindle	150 mm	150 mm
Max. length of part for frontal ejection	200 mm	200 mm
Evacuation of part through the sub spindle	Optional	Optional
Longitudinal stroke	300 mm	300 mm
Rapid feed	30 m/min	30 m/min

# Power-Diagram K'MX 732 EVO



- Main spindle Torque
- S1 const 23,9 Nm
- S3 25% 33,4 Nm



- Sub spindle Torque
- S1 const 23,6 Nm
- S2 30 min 30 Nm

# Technical Data K'MX 732 EVO



	Ø 26	Ø 32
<b>Main tool rack</b>		
<b>Horizontal travel (X Axis)</b>		
Number of tool racks	2	2
Stroke	2x45 mm	2x45 mm
Rapid feed	30 m/min	30 m/min
<b>Vertical travel (Y Axis)</b>		
Number of tool racks	2	2
Stroke	2x180 mm	2x180 mm
Rapid feed	30 m/min	30 m/min
Number of tool positions	(2 x 5): 10	(2 x 5) : 10
Tool shank size (OD operations)	16 x 16 mm	16 x 16 mm

# Technical Data K'MX 732 EVO



	Ø 26	Ø 32
<b>End working unit ( Y Axis )</b>		
<b>Vertical tool rack - Tool stations (Y Axis)</b>		
Number of tool rack	1	1
Stroke	260 m	260 mm
Max. rapid feed	30 m/min	30 m/min
<b>Number auf internal tool stations</b>	<b>4 + 4</b>	<b>4+ 4</b>
Internal collet-holder section	ER 20	ER 20



# Technical Data K'MX 732 EVO



Ø 26      Ø 32

## Pneumatic unit

Required pressure  
Fitting size

6 bar      6 bar  
Ø 10 mm    Ø 10 mm

## Coolant

Tank volume  
Flow rate  
Pressure

300 l      300 l  
50 l/min    50 l/min  
9 bar      9 bar

# Technical Data K'MX 732 EVO



Ø 26

Ø 32

## Electrical installation

Voltage	3 x 400 V – 50 Hz	
Power Input	32 KVA	32 KVA
Cable section	3 x 16mm <sup>2</sup>	3 x 16mm <sup>2</sup>
Circuit fuse	63 A	63 A

## Dimensions

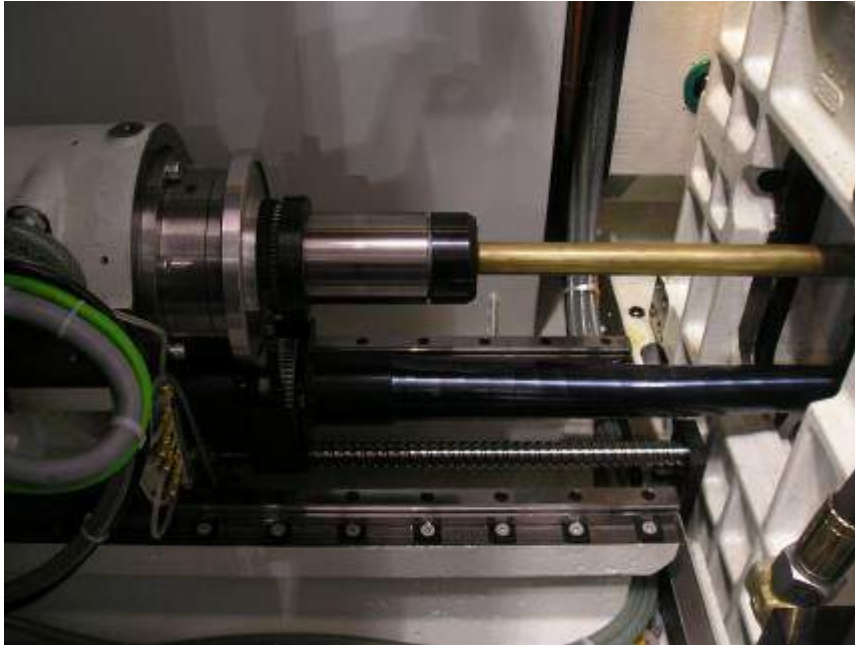
Length ( mm )	3 000	3 000
Width (mm )	1 400	1 400
Height ( mm )	1 600	1 600

Weight	4 500 Kg	4 500 Kg
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Control system	Fanuc 31 iB	
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Machine color	Light grey RAL 7035 Blue RAL 5017	
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# Main spindle and guide bush



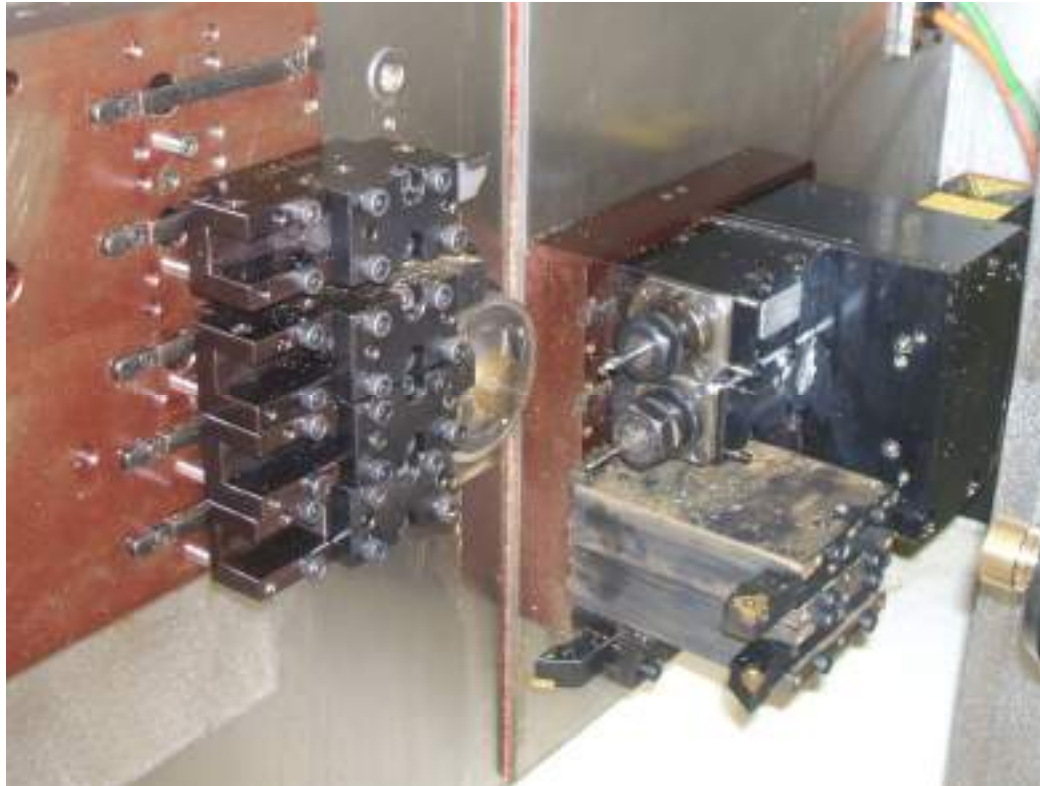
## Maximum spindle rotation

max. 8 000 rpm/min  
(from both Spindle)

Both spindles are regulated in temperature by internal cooling liquid.

The guide bush is driven in synchronization with the spindle by a splined gear and 2 toothed belts.

# Main tool racks

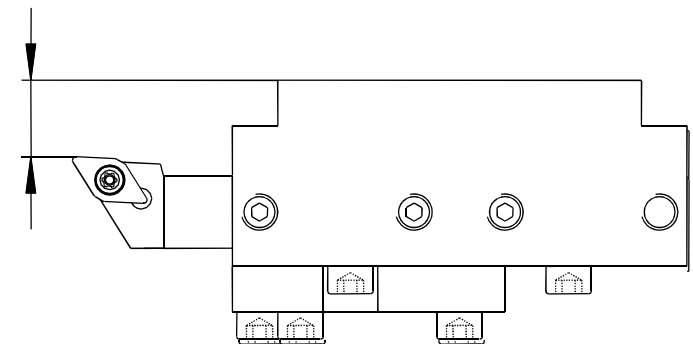


The standard equipment of the machine consists of 2 x 5 fixed tool stations. Each tool is included in a cassette for 16 x 16 mm square. The same cassette for left or right cut

# Main tool racks



Simultaneous rough / finish turn is one of the biggest advantages of these machines.



The modular tool cartridges are identical on all our machines type, K'MX 4-5-626/32 as well as on the K'MX SWING 7 and 10 axis ,  
 And also DUO and EVO machines

# Working racks ( X and Y)



- K'MX 732 EVO has all cutting tool holder on the 2 main tool racks.
- For the axial operations which is 2 x 4 stations end working device with internal tool holders.
- Center, drill, tapping can be done simultaneously on main and sub spindle.

# End working attachment at K'MX 732 EVO

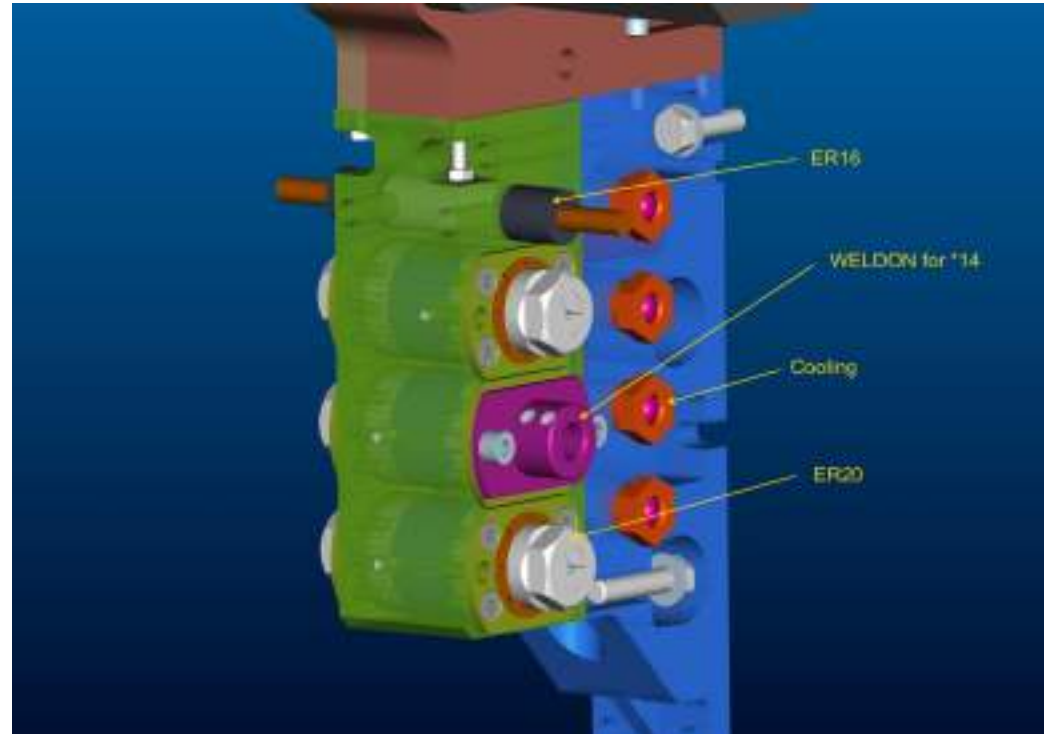
A selection of quick change driven tool holders



Drilling, milling, polygon milling etc... a lot of opportunities to K'MX 732 EVO with up to 6 driven tools on the end working attachment.

# End working attachment K'MX 732 EVO

A selection of quick change driven tool holders



ER16, ER20, Weldon, High pressure holder, etc... a lot of possibilities to K'MX 732 EVO with up to 2 x 3 driven tools on the end working attachment.



# Sub-spindle



K'MX 732 EVO has as standard cooled electro-spindles (cooling medium: oil).

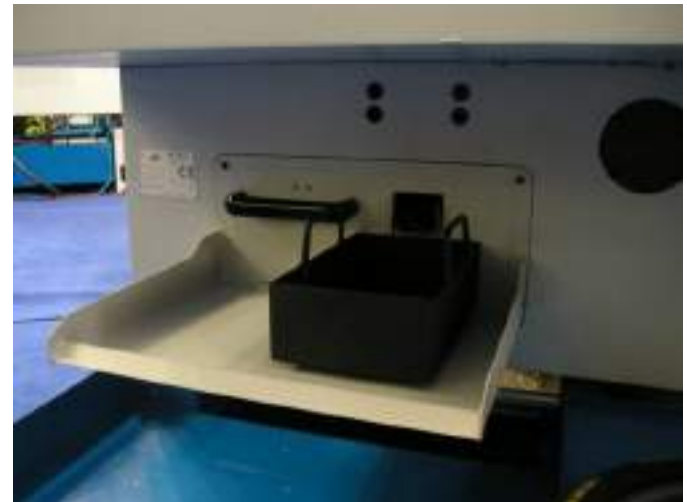
K'MX 732 EVO allows simultaneous machining on both spindles with axial and radial tools. Both spindles are moving only in the Z axis. The two Z axis can be synchronized.

# Accessories of K'MX 732 EVO

## Part catcher

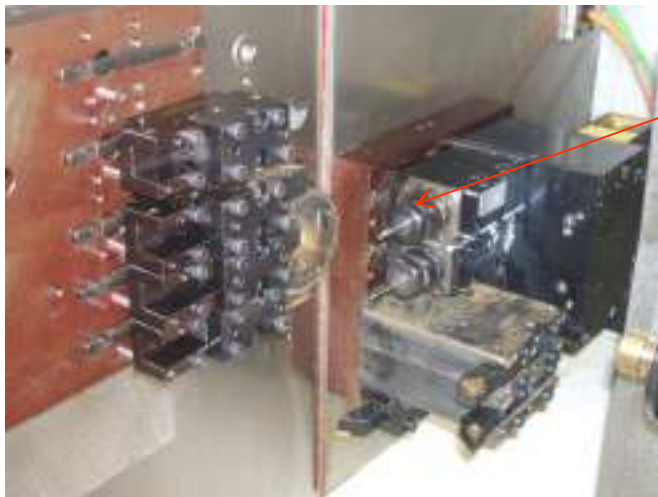


The parts catcher installed under the Sub spindle is constructed so that he can either take off parts of the main or sub spindle.



# Optional accessories for K'MX 732 EVO

Powered tools on front  
and / or rear side of tool rack



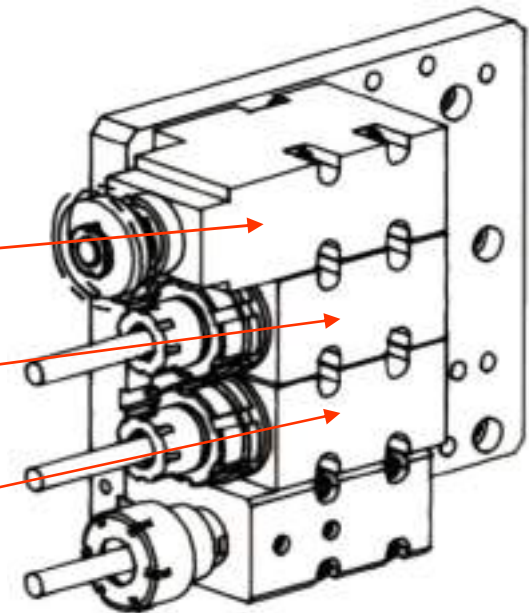
The front and/or rear rack can be fitted  
with 3 powered tools

Characteristics of 3 stations Gear unit :

Top station :  $V_{max} = 8\ 000\ rpm$   
 $C_{max} = 16\ Nm$

Middle station :  $V_{max} = 4\ 000\ rpm$   
 $C_{max} = 32\ Nm$

Down station :  $V_{max} = 2\ 000\ rpm$   
 $C_{max} = 64\ Nm$



# Tool holder system

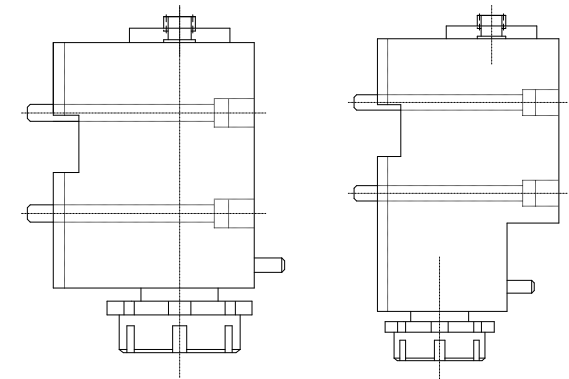


Turning tool cassette (re.)

Rotating tool as standard



- Rotating tool as standard
- Rotating tool near the Guide bushing

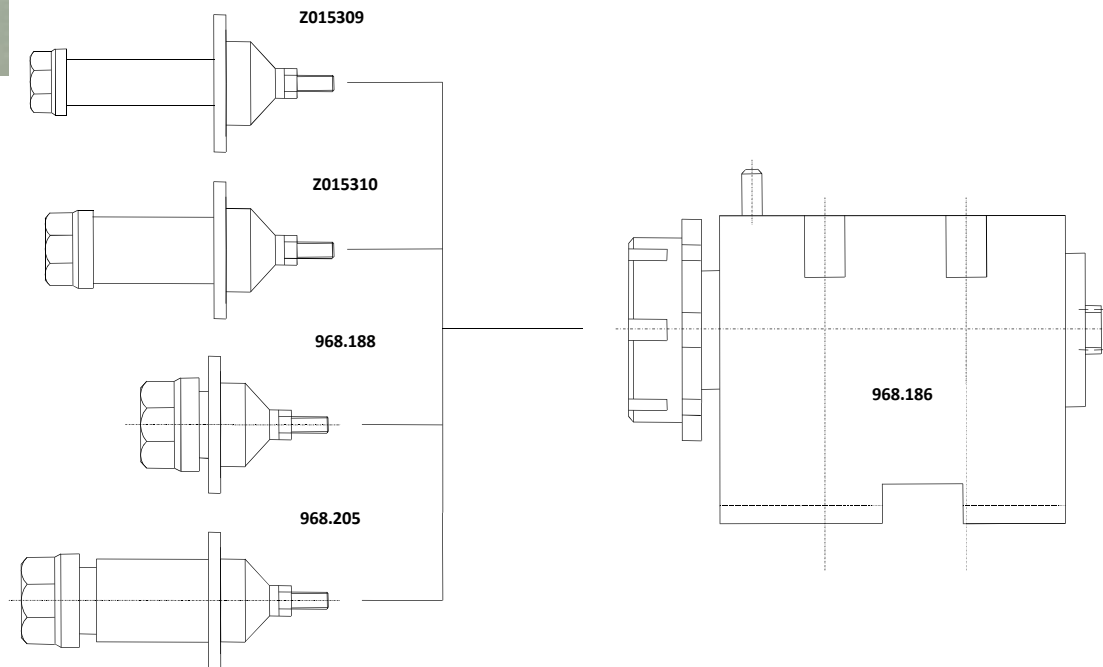


# Tool holder system



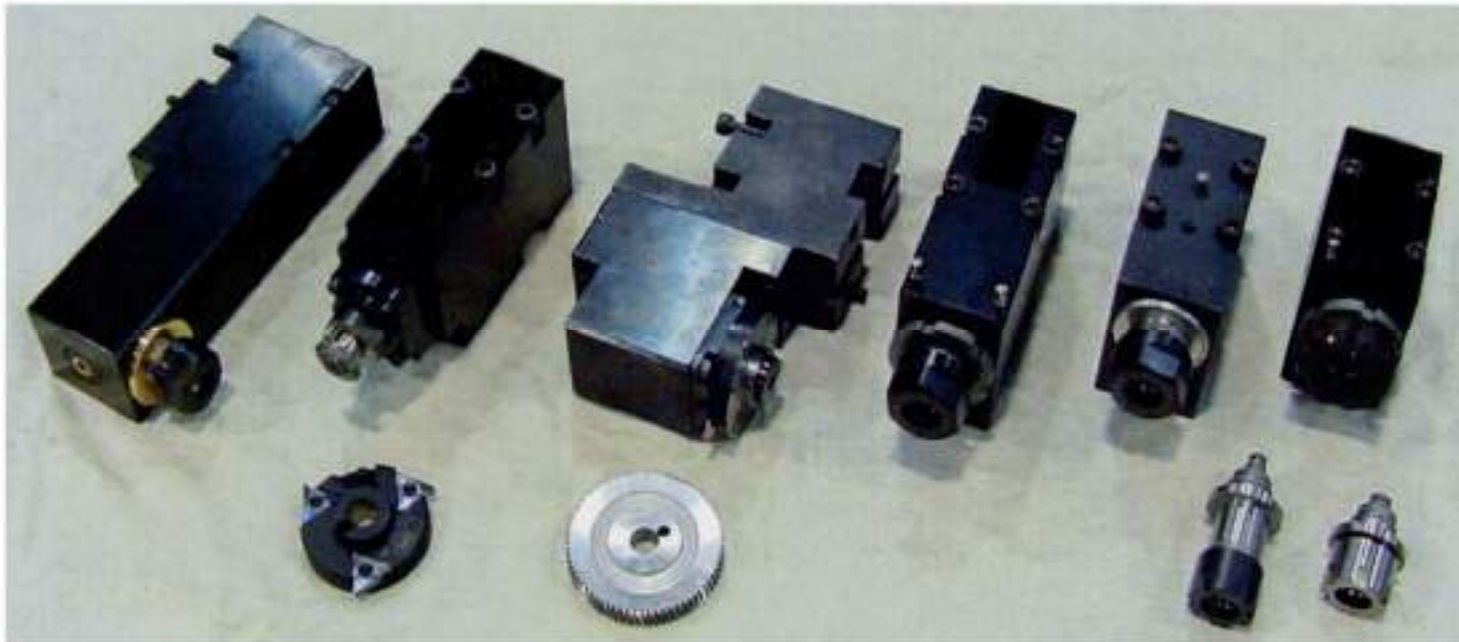
Power-driven tools with quick change head

- length 50 mm
- length 28 mm (standard)



# Optional accessories for K'MX 732 EVO

A selection of driven tool holders



Drilling, milling, polygon milling etc... a lot of opportunities to K'MX 732 EVO with driven tools.

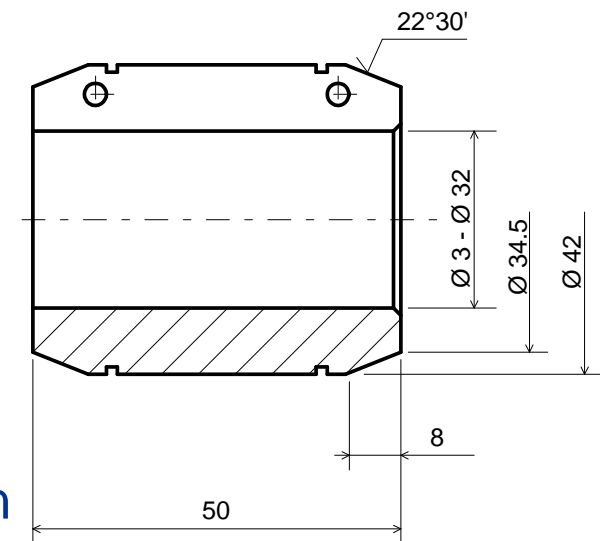
## Optional accessories for K'MX 732 EVO

### Pneumatic guide bush device

The pneumatic guide bushing is used for:

- material quality over h9
- Multiple re-positioning of the main spindle (items with over stock)
  - parts at both ends machining
- 3 positions are possible:
  - **locking**: the bush locks the material in translation
  - **guiding**: the bush guides the material and fits to diameter variation
  - **opening**: the material goes through the bush

### Typ of bushes 03-00-00 (Manurhin)



## Optional accessories for K'MX 732 EVO

Guiding device for long parts with or without manipulator

C-axis : on main spindle and sub-spindle

Rigid tapping on main spindle and sub-spindle

Coolant through the tools (High pressure)





# Guiding device for long parts



- Standard device



- Special device (left)

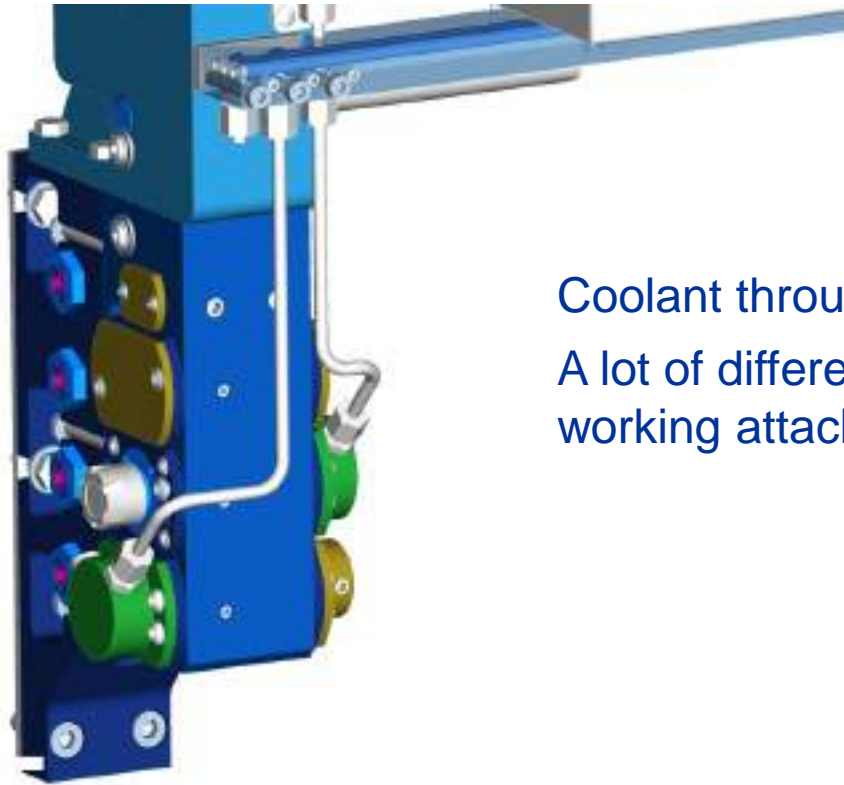
# External high pressure pump



- Set-up can be designed individually
  - Power features
    - Pump with 3,0 kW
    - 70 bar pressure
    - 20 Liter per Minute
    - 40  $\mu$ m Filter
  - Incl. Pressure limit, Manometer
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- Set-up can be designed individually
  - Pump with 5,5 kW
  - 110 bar pressure
  - 30 Liter per Minute
  - 2 x 25  $\mu$ m Filter
    - Incl. Pressure limit, Manometer



# Coolant through the tools



Coolant through the tools at all axial stations  
A lot of different possibility at the end  
working attachment

The internal cooling is fluid through the 2 tools holder, directly through the internal or external tool holders to the cutting insert. No coolant pipe and swarf in the working area.

# Collets for main spindle



**F42 (171E)**

Round                     $\varnothing$  3,0...32,0 mm  
Hexagonal              4...27,0 SW  
4 Square                4...22,0 SW



**F38 (164E)**

Round                     $\varnothing$  3,0...26,0 mm  
Hexagonal              4...22,0 SW  
4 Square                4...18,0 SW

**F32 (161E)**

Round                     $\varnothing$  3,0...26,0 mm  
Hexagonal              4...22,0 SW  
4 Square                4...18,0 SW

# Collets for sub-spindle

## F38 (164E)

Round	Ø 3,0...32,0 mm
Hexagonal	4...27,0 SW
4 Square	4...22,0 SW



## F32 (161E)

Round	Ø 3,0...26,0 mm
Hexagonal	4...22,0 SW
4 Square	4...18,0 SW

## F25 (145E)

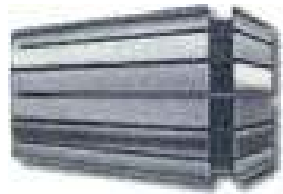
Round	Ø 3,0...20,0 mm
Hexagonal	4...17,0 SW
4 Square	4...14,0 S

# Guide bush collets



<b>13.001 (Neukom)</b> <b>37A (Dunner)</b> <b>5 (Chatel)</b>	Round Hexagonal 4 Square	Ø 3,0...14,0 mm 3...12,0 SW 3...9,0 SW
<b>18.001 (Neukom)</b> <b>B260 (Dunner)</b> <b>6T (Chatel)</b>	Round Hexagonal 4 Square	Ø 15,0...20,0 mm 13...17,0 SW 10...14,0 SW
<b>451.001 (Neukom)</b> <b>B227 (Dunner)</b> <b>6A (Chatel)</b>	Round Hexagonal 4 Square	Ø 21,0...26,0 mm 18...22,0 SW 15...18,0 SW
<b>14.028.001 (Neukom)</b> <b>J9 (Dunner)</b> <b>7B (Chatel)</b>	Round Hexagonal 4 Square	Ø 27,0...32,0 mm 23...27,0 SW 18...22,0 SW

# Collets

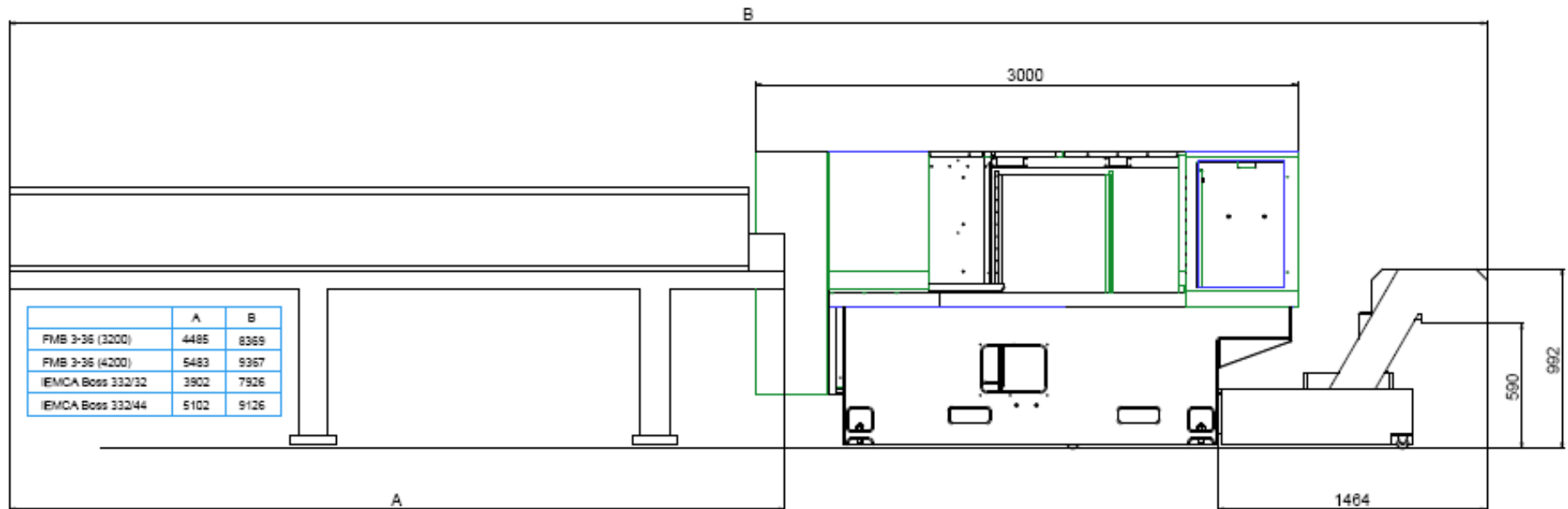


**ER 11**       $\text{Ø } 1,0\text{...}7,0 \text{ mm}$

**ER 16**       $\text{Ø } 1,0\text{...}10,0 \text{ mm}$

**ER 20**       $\text{Ø } 1,0\text{...}13,0 \text{ mm}$

**ER 25**       $\text{Ø } 2,0\text{...}16,0 \text{ mm}$



# Cross drilling with HF-Spindle



- High frequency - Electro spindle for cross drill (60.000 rpm/min)
- 125W Power
- Clamping diameter  $\varnothing$ 1-5mm





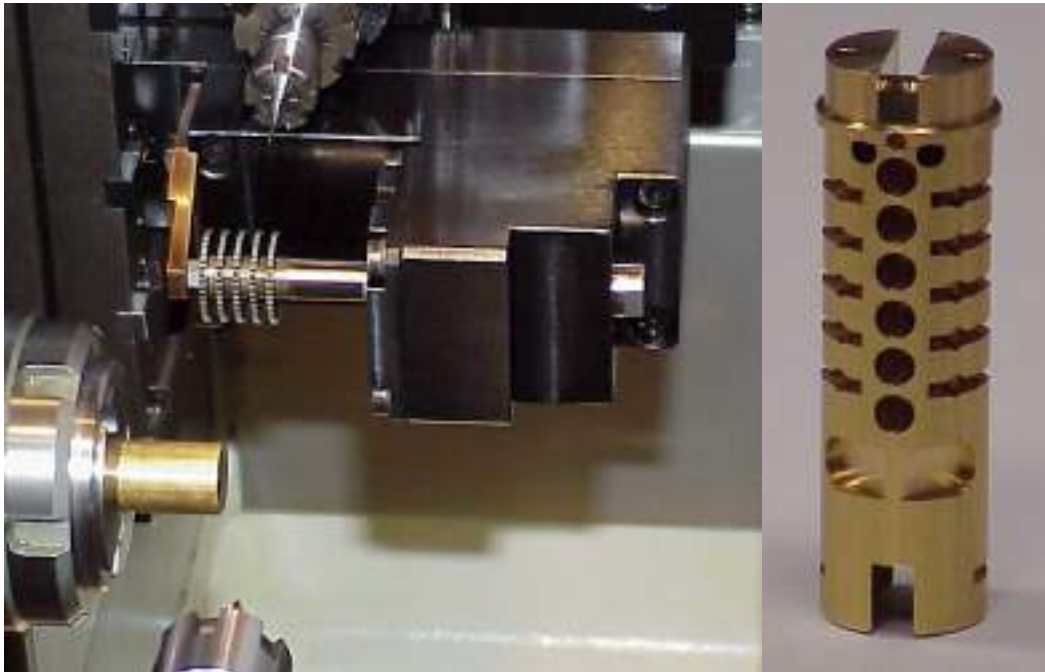
# Thread rolling and roller finishing



- Material: 42CrMo4V - Ø17
- Thread rolling head B13-W from WAGNER, tangential
- M16x1 and M14x1,5
- Roller finishing ECOROLL



# Special milling device



Special milling holder

Capacity :  
to 8 saw with Ø 30

Max. revolution : 2.000 rpm/min

# Polygon milling in steel

Hexagonal 12 mm on flats

Material : 45SiCrV6

Spindle speed = 2 000 rpm

Tool speed = 4 000 rpm

Feed = 0,015 m/r

(fz=0,005 mm/r)



# Gear milling



## Gear :

- Material : 9SMnPb28k
- Teeth :  $m = 1 ; z = 13$



## Part : Cone-wheel

- Material : CuZn39Pb3
- Teeth :  $z = 20$



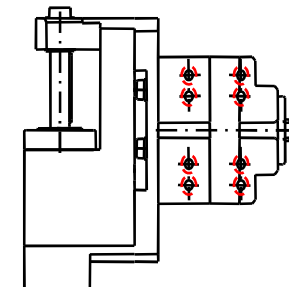
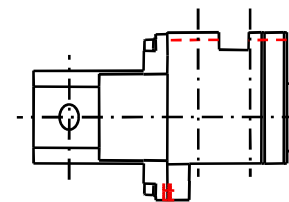
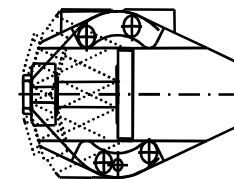
Special tool holder on rear rack

Milling tool  $\varnothing 50,0$  mm

Speed : max 6 000 rpm

Angle :  $\pm 20^\circ$

Torque max : 20 Nm



# VIDEO K'MX 726/32 EVOLUTION

