

Automatic tool change with a robotic manipulator

06.03.2019

TOS VARNSDORF a.s

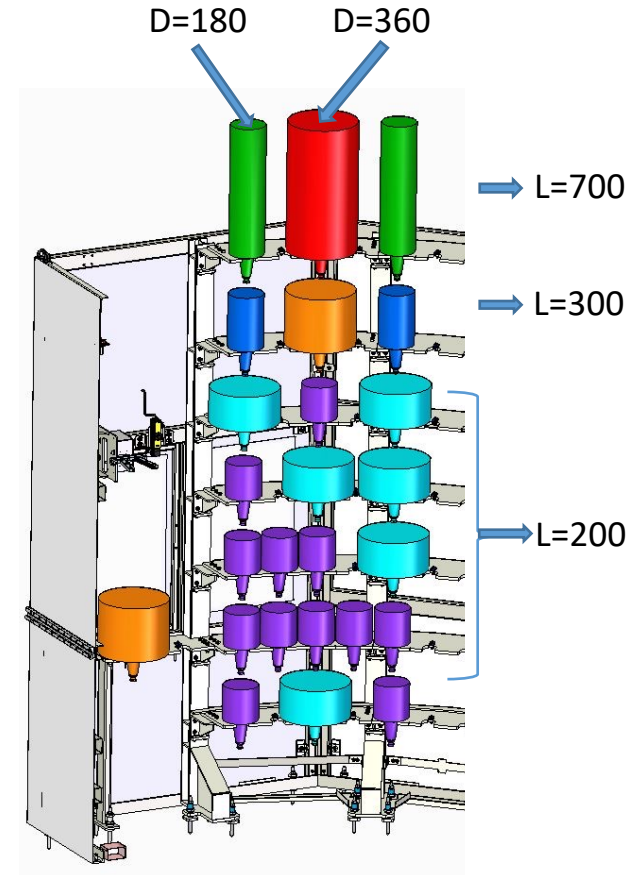
Milling machine manufacturer

TOS VARNSDORF a.s.



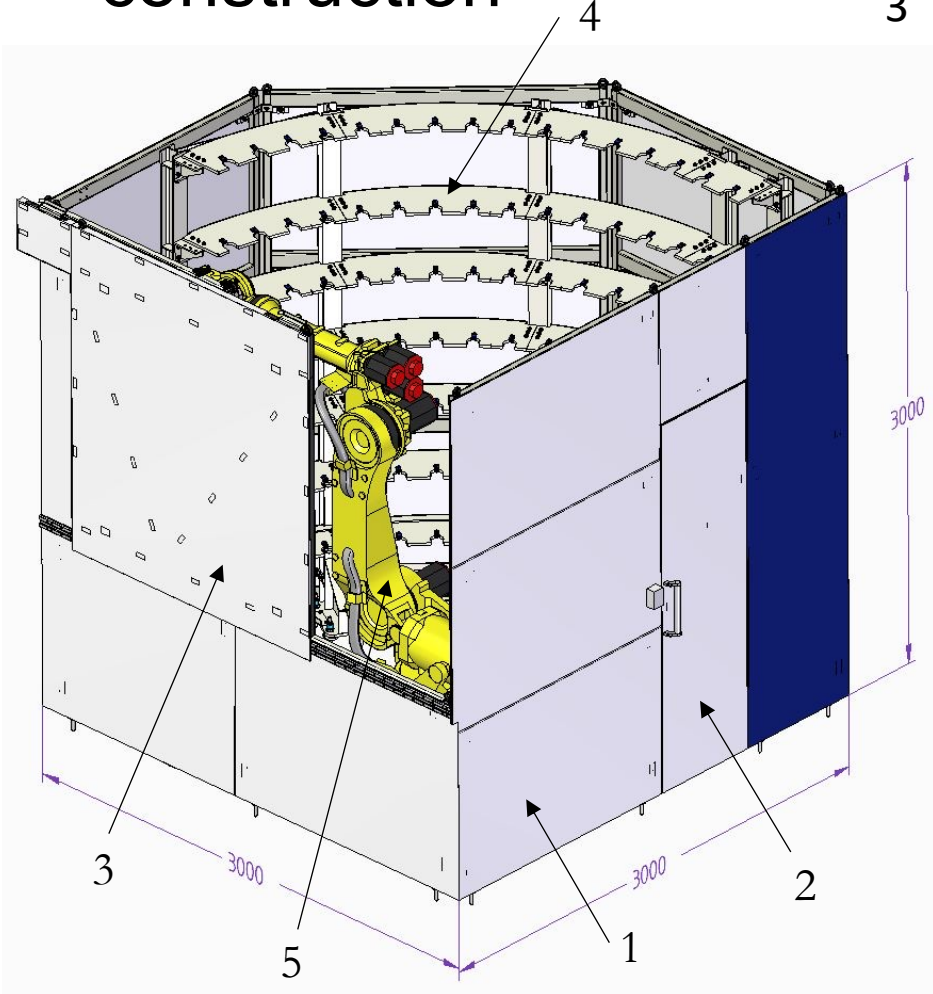
Technical data

Robot type	FANUC R-2000iC 165F	
Exchange time (when using the function – TOOL DEF)	15 s	
Max. tool weight	30 kg	
Max. tool diameter (D)		
with fully loaded magazine	180 mm	
with free neighboring places	360 mm	
Max. number of tools in the magazine	112	
The sizes and numbers of tools		
	Length (L)	Number
Tool type 1	700	16
Tool type 2	300	16
Tool type 3	200	80
Spindle taper and taper standards		
ISO 50 - DIN 69871		
CAT 50 – ANSI/ASME B5.50-1978		

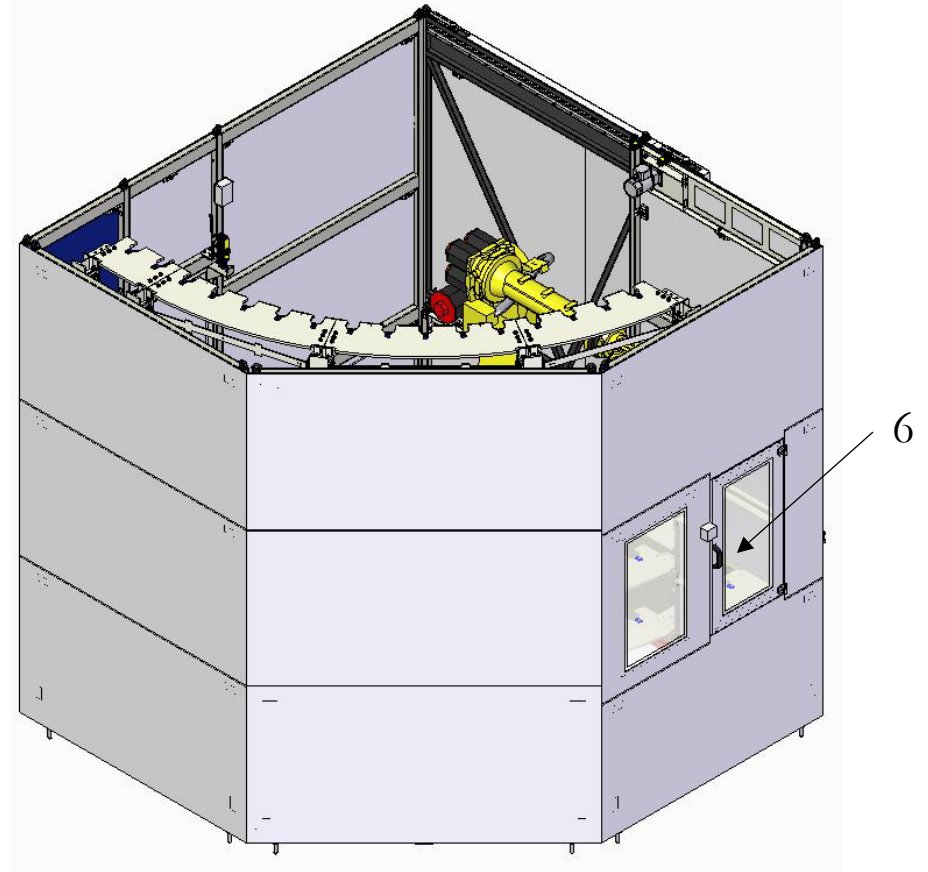


Magazine construction

- 1 Covering
- 2 Service door
- 3 Moveable gate
- 4 Frame with tool places
- 5 Robot
- 6 Loading window

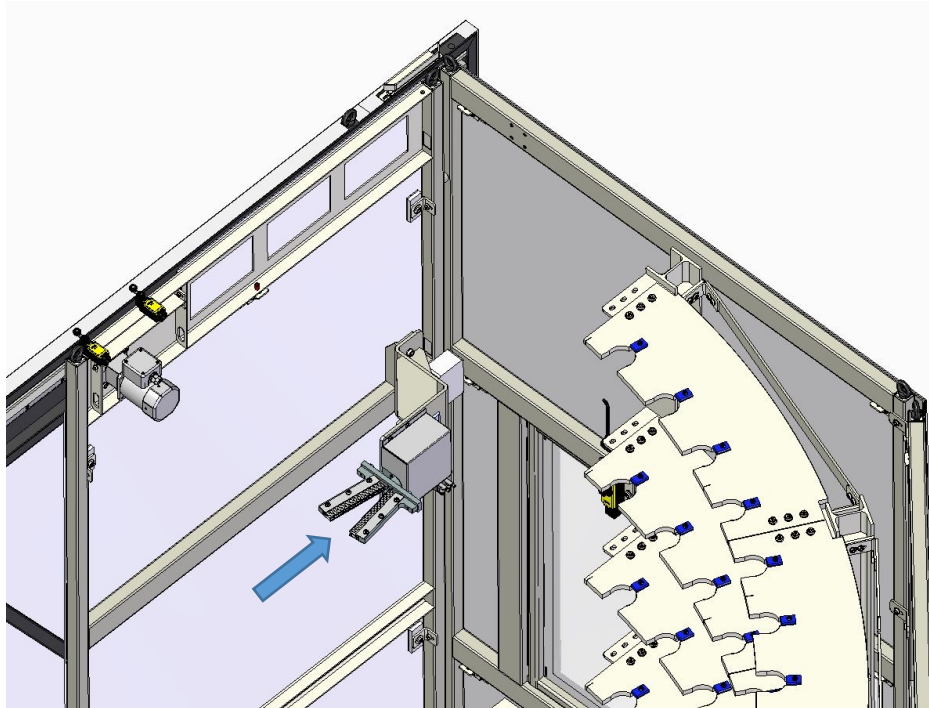


Front side



Rear side

Magazine equipment

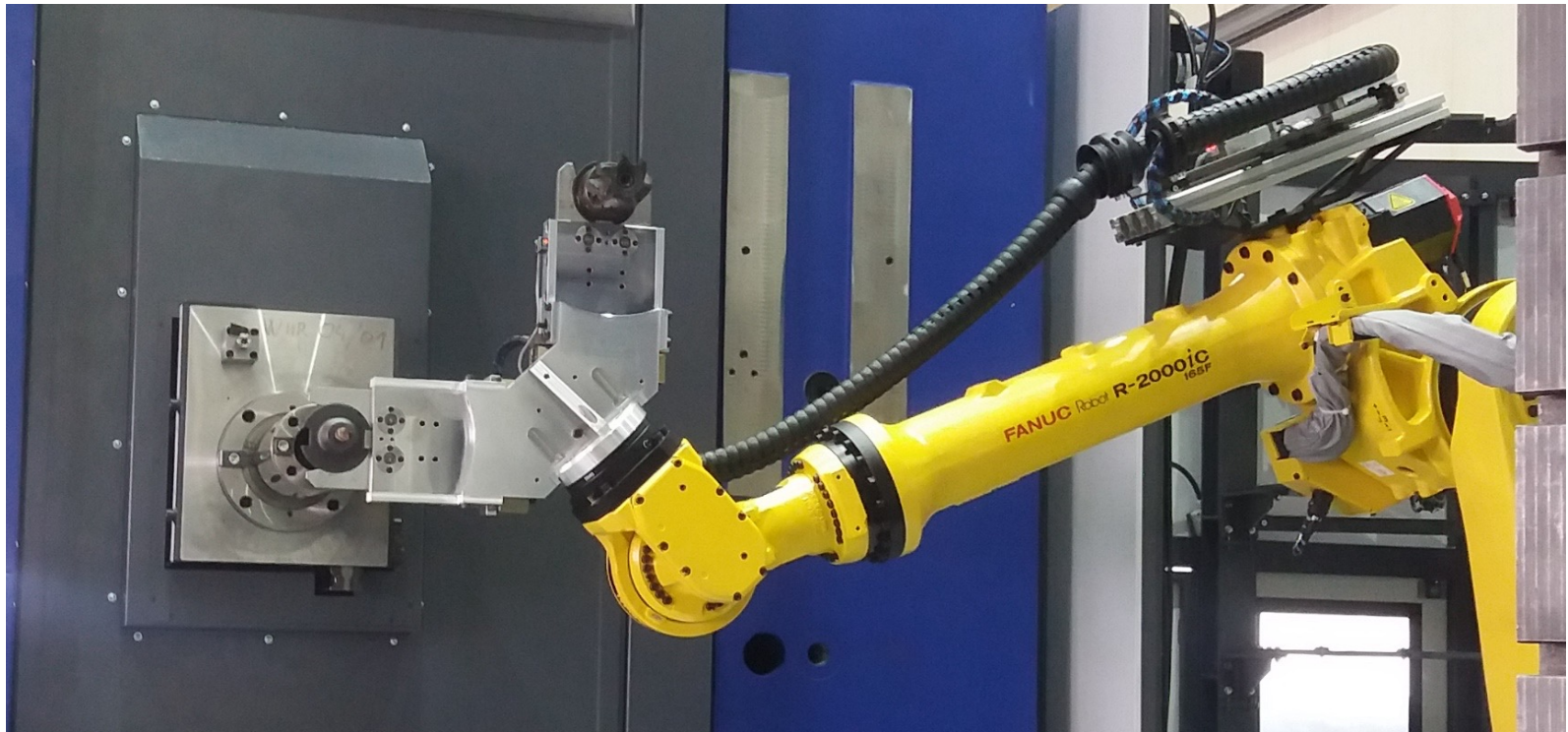


Cleaning unit



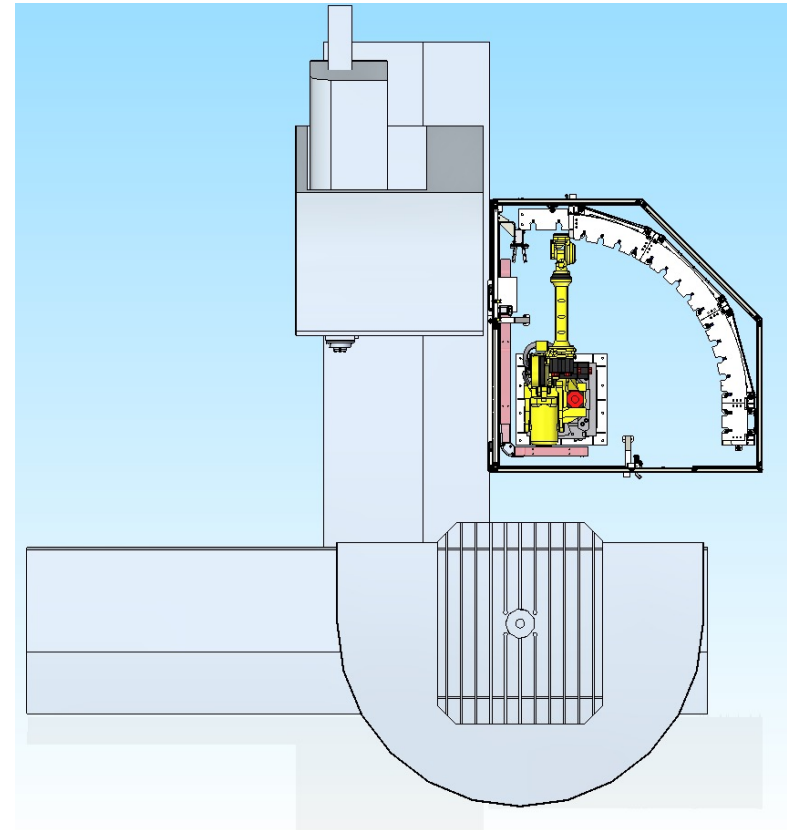
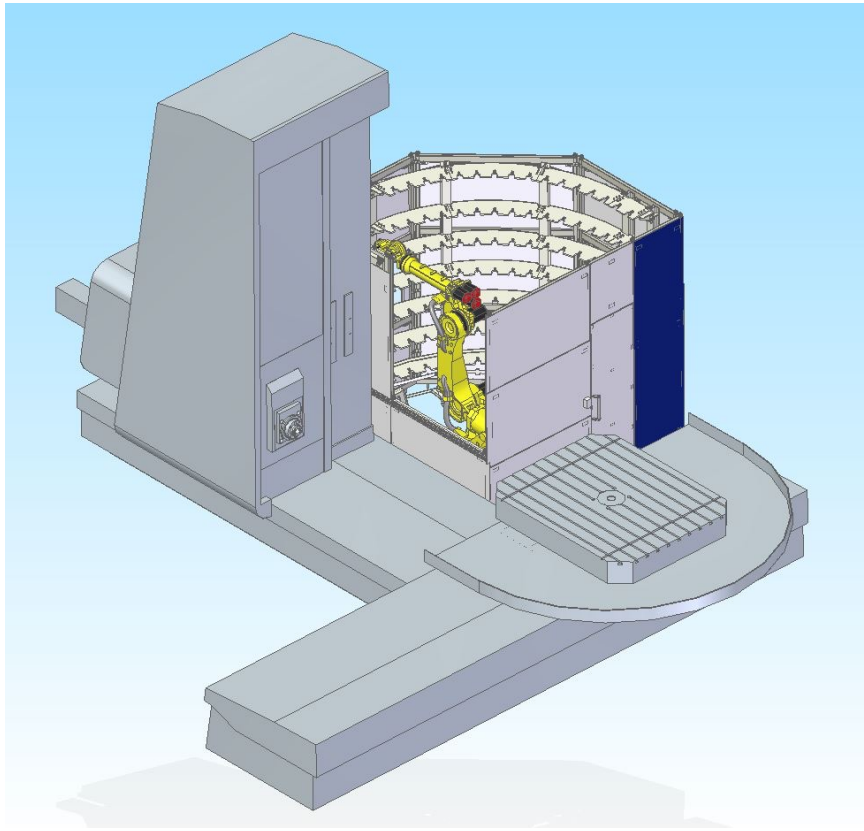
Control panel

Double gripper arm



Robot with double gripper arm – during tool exchange process

Magazine location – table machine type



Thank you for your attention