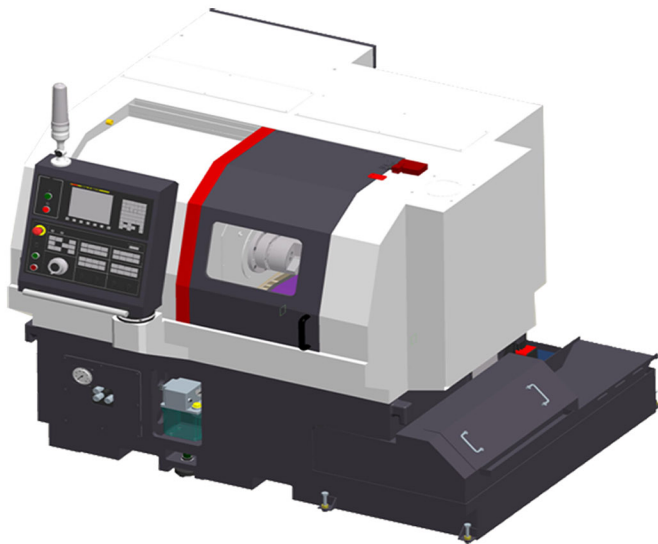
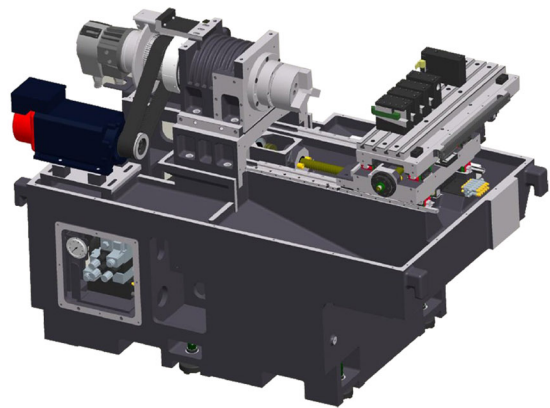


ML-430 SERIES CNC LATHE MACHINE



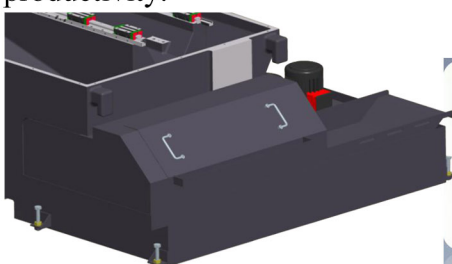
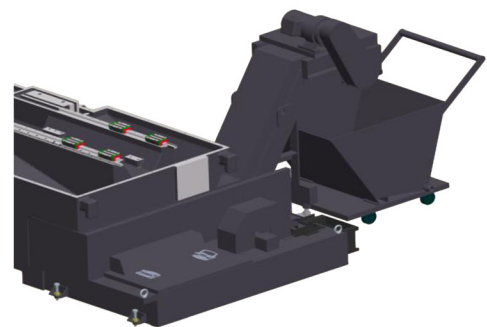
Chuck	: 6"
Swing over bed	: Ø430 (Ø16.9")
Swing over saddle	: Ø160 (Ø6.3")
Machining dia.	: Ø430 (Ø16.9")
Machining length	: 240(9.4")
Spindle nose	: A2-5

GANG TYPE / TURRET TYPE CUTTING CENTER



The new model ML-430 with Y-axis design is based on offering high precision, high performance, and high C/P, for complex components of medical and automobile machining.

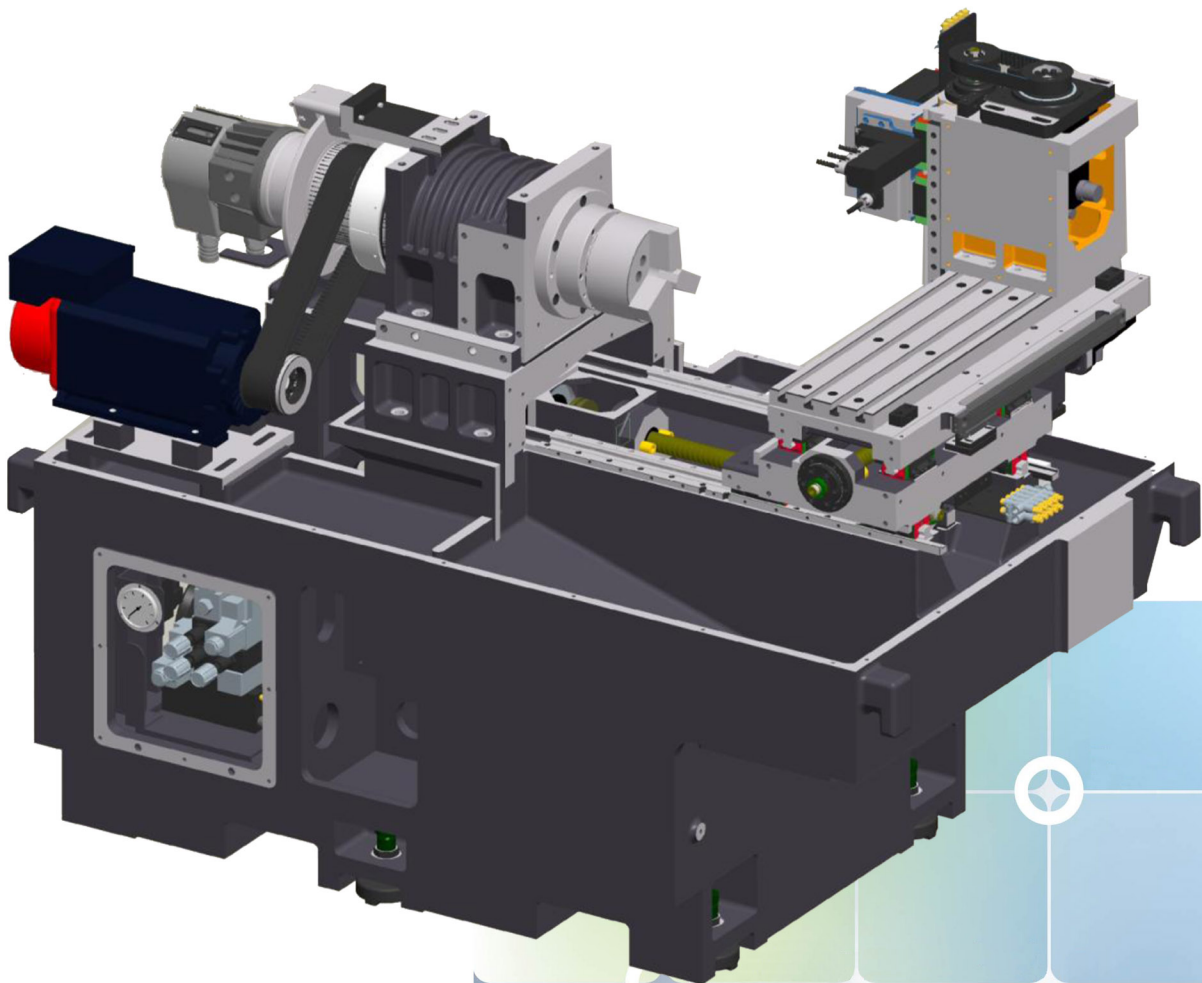
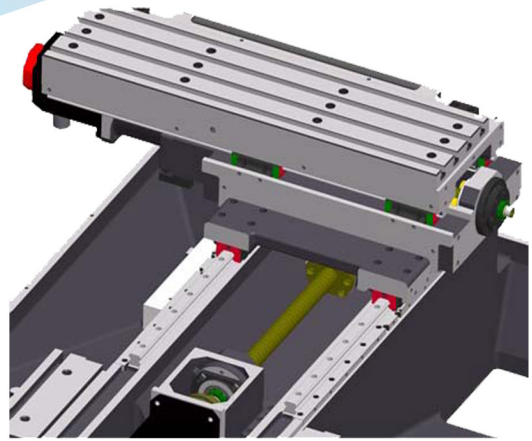
- The gang-tool turning center works with 2 linear guide ways can offer quick tool change and positioning, but with high efficiency and low cost.
- The ML-430 offers small floor space for multi-tasking production. The chips are taken out from the back side of machine. The design prevents from the chips heat influencing the machining accuracy.
- The linear guide way design with high accuracy and rigidity can offer high machining rate and productivity.



- The two chips channels at right side of machine are separated with coolant tank, with their assistance the chips are taken out from the back side of machine. This offers better cooling efficiency.

HIGH RIGIDITY STRUCTURE

- With the FEA, the design of mechanism ribs on the bed is optimized. Its rigidity is higher than traditional design so that the ML-430 can offer stability and accuracy during long time machining.
- All slide plate, headstock, saddle, tool holder secure plate and the contact surface of ball screw mechanism are scraped by hand, these offer high precision and rigidity.
- X- and Z-axis use high precision and rigidity guide ways, and big cross distance to enhance machine strength.
- With Y-axis control to proceed high precision grooving and offset drilling. Further enhance multi-tasking machining capacity and improves machining precision, and efficient machining variety of parts.
- X- and Z-axis use FANUC absolute encoding motor to offer quick acceleration and deceleration, and thrust force.



MACHINE SPECIFICATION

Specification / Model		Unit	ML-430S	ML-430T	ML-430P	ML-430Y
CAPACITY	Swing over bed	mm(in.)	Ø430 (Ø16.9")	Ø430 (Ø16.9")	Ø430 (Ø16.9")	Ø430 (Ø16.9")
	Swing over saddle	mm(in.)	Ø160 (Ø6.3")	Ø160 (Ø6.3")	Ø160 (Ø6.3")	Ø160 (Ø6.3")
	Max. machining dia.	mm(in.)	Ø430 (Ø16.9")	Ø430 (Ø16.9")	Ø430 (Ø16.9")	Ø430 (Ø16.9")
	Max. machining length	(°)	240(9.4")	240(9.4")	240(9.4")	240(9.4")
	Slant angle of bed		0°	0°	0°	0°
TRAVEL RANGE	X-axis	mm(in.)	350 (13.8")	350 (13.8")	350 (13.8")	350 (13.8")
	Z-axis	mm(in.)	320 (12.6")	320 (12.6")	320 (12.6")	320 (12.6")
	Y-axis	mm(in.)	—	—	—	136.5 (5.4") PS*
	C-axis	(°)	OPT.:360°(0.001")	OPT.:360°(0.001")	360°(0.001")	360°(0.001")
SPINDLE	Spindle speed	min ⁻¹ (rpm)	6000	6000	6000	6000
	Spindle nose		(A2 -5)	(A2 -5)	(A2 -5)	(A2 -5)
	Spindle bore dia.	mm(in.)	Ø56(Ø2.2)	Ø56(Ø2.2)	Ø56(Ø2.2)	Ø56(Ø2.2)
	Draw bar dia.	mm(in.)	Ø45(Ø1.8)	Ø45(Ø1.8)	Ø45(Ø1.8)	Ø45(Ø1.8)
	Spindle transmission	mm(in.)	V-type belt	V-type belt	V-type belt	V-type belt
	CHUCK	Chuck diamter	mm(in.)	Ø152 (6")	Ø152 (6")	Ø152 (6")
TURRET	Type		Gang type	Turret	Power turret	YDPM power turret
	Station		6	8	12	5
	Square tool shank	mm(in.)	20X20(3/4"x3/4")	20X20(3/4"x3/4")	16x16(5/8"x5/8")	20X20(3/4"x3/4")
	Boring bar shank diamter	mm(in.)	Ø25(1.0")	Ø25(1.0")	Ø20(0.8")	Ø25(1.0")
LIVE-TOOL	Drive mode		—	—	Gear	Gear
	Tool max. speed	min ⁻¹ (rpm)	—	—	5000	4000
	Tool specification		—	—	VDI20 ER16	ER16
FEEDRATE	Rapid traverse	m/min	X:30 Z:30	X:30 Z:30	X:30 Z:30	X:30 Y:18 Z:30
	Main spindle (30min/cont)	KW(hp)	5.5/7.5(7.4/10)	5.5/7.5(7.4/10)	5.5/7.5(7.4/10)	5.5/7.5(7.4/10)
MOTORS	Live tool (30min/cont)	KW(hp)	—	—	1.1/ 2.2(1.5/2.9)	—
	X-axis servo motor	KW(hp)	1.2 (1.6)	1.2 (1.6)	1.2 (1.6)	1.2 (1.6)
	Y-axis servo motor	KW(hp)	—	—	—	1.2 (1.6)
	Z-axis servo motor	KW(hp)	1.2 (1.6)	1.2 (1.6)	1.2 (1.6)	1.2 (1.6)
	Y-axis power tool Motor	KW(hp)	—	—	—	0.75 (1)
	Hydraulic pump	KW(hp)	0.75 (1)	0.75 (1)	0.75 (1)	0.75 (1)
	Coolant pump	KW(hp)	0.96(1.3)	0.96(1.3)	0.96(1.3)	0.96(1.3)
POWER		KVA				
MACHINE SIZE	Length	mm(in.)	2100(82.7")	2100(82.7")	2100(82.7")	2100(82.7")
	Width	mm(in.)	2030 (80")	2030 (80")	2030 (80")	2030 (80")
	Height	mm(in.)	2120(83.5")	2120(83.5")	2120(83.5")	2120(83.5")
	New weight	kg(lb)				
CONTROLLER			Std:FANUC Oi - TF	Std:FANUC Oi - TF	Std:FANUC Oi - TF	Std:FANUC Oi - TF

Note: Specifications are subject to change without further notice.



Available controller:

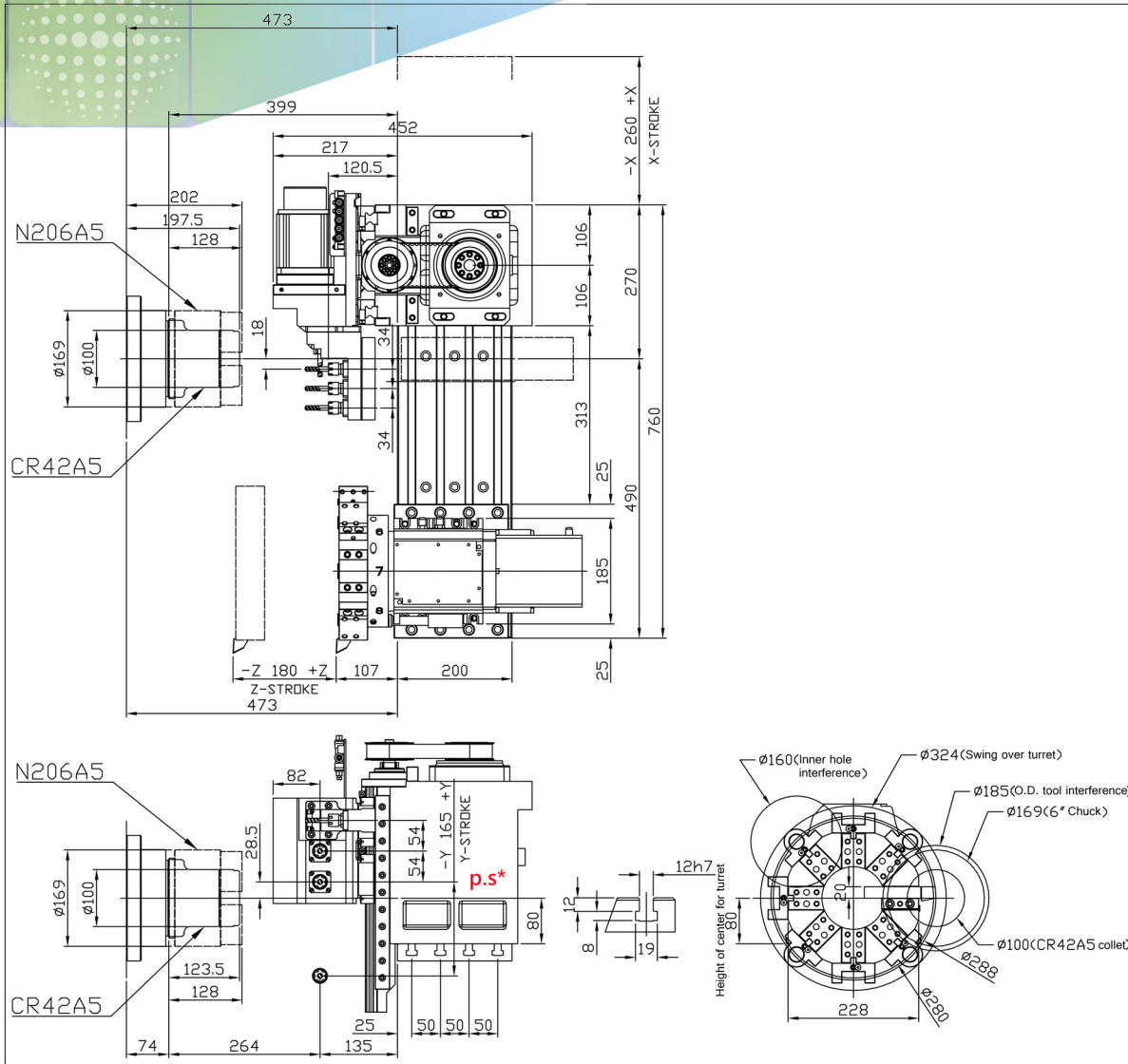
1. FANUC Oi-TF
2. MITSUBISHI M70/M80
3. SYNTEC
4. ITRI
5. DELTA
6. SIEMENS 828D
7. HEIDENHAIN

MACHINE ACCESSORIES

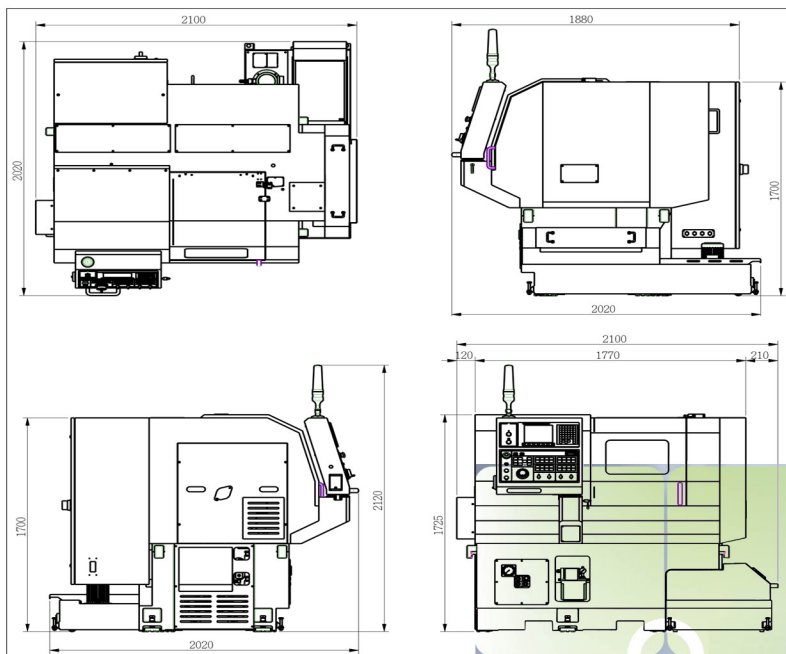
●Standard ○Option

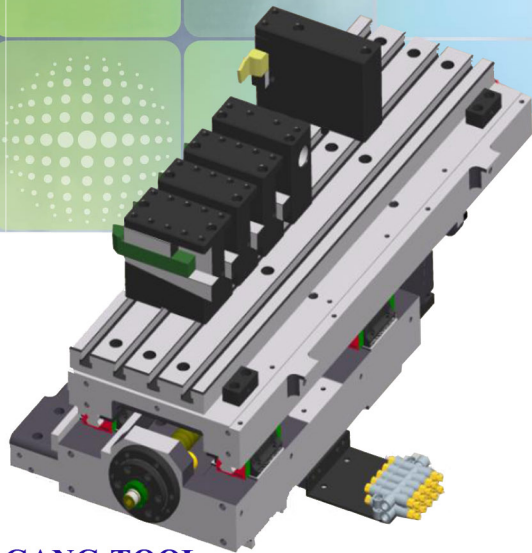
Item	ML-430S	ML-430T	ML-430P	ML-430Y
Spindle positioning	Manual positioning	●	●	—
	Hydraulic braking	○	○	—
	CS-axis+2-step hydraulic braking	○	○	●
Tooling system	High pressure coolant pump	○	○	○
	Single Chuck	●	●	●
Lubrication system	Hydraulic rotary cylinder	●	●	●
	Safety door	●	●	●
Parts catcher	●	●	●	
Bar feeder interface	●	●	●	
Air blow for chuck	●	●	●	
Program end 3-color light	●	●	●	
LED work lamp	●	●	●	
Coolant system	●	●	●	
Tools box	●	●	●	
Oil mister	○	○	○	
Bar feeder	○	○	○	
Transfermer	○	○	○	
Chip conveyer	○	○	○	
Parts conveyer	○	○	○	
Collet chuck	○	○	○	
Parts collector	○	○	○	
Gantry robot and loading/unloading	○	○	○	
Variable -frequency hydraulic system	○	○	○	
High pressure pump	○	○	○	
Sub-plate of fixture for tools	○	○	○	
Customized loading/unloading automatic design	○	○	○	
Various chucks option and fixture design	○	○	○	

ML-430Y Travel & Tool Interference Diagram



Machine Dimension

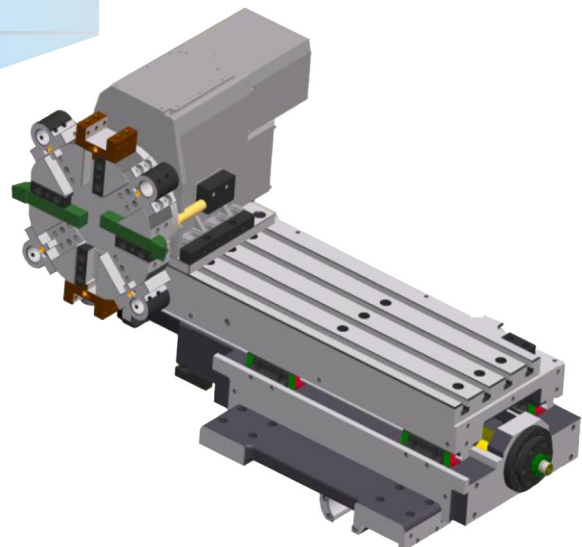




GANG-TOOL

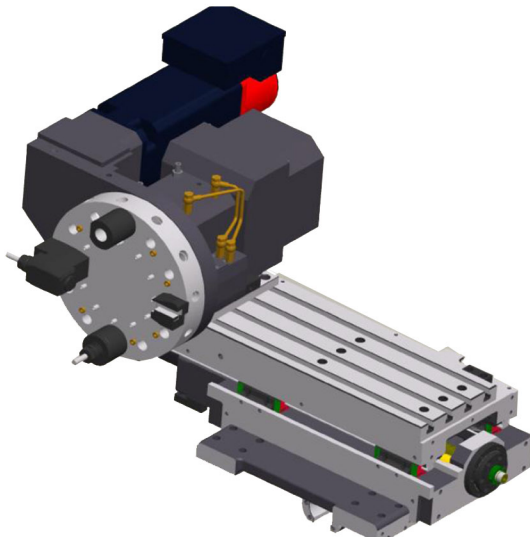
(CUTTING TOOL, IDx1, ODx3)

- Low cost and compact configuration.
- Long X-axis traverse, 5~6 tools, and 30M feed rate, can offer quick and high precision machining job.
- Auxiliary tool plate available for quick tool-set change.
- Load/Unload system available.



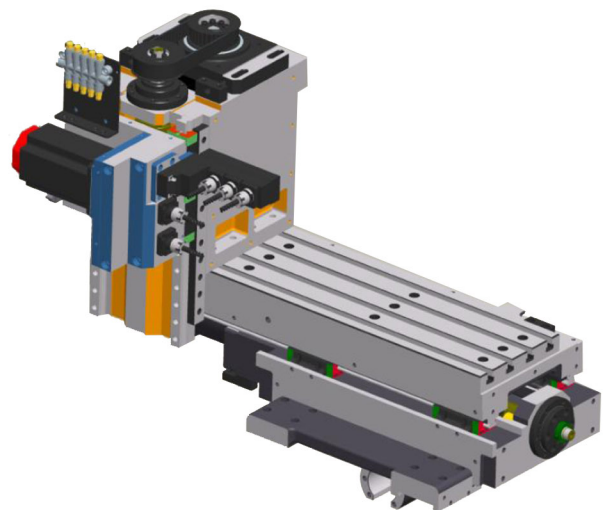
8-TOOL TURRET+GANG-TOOL

- Gang-tool slide can be mounted up to 12~13 tools totally available when with 8-tools turret .
- Auxiliary tool plate available for quick tool-set change.
- Load/Unload system available.
- High pressure pump available.



12-TOOLS TURRET+GANG TOOL

- The slide plate for gang-tool can also mount 12-T power turret at 5000 rpm, totally 15~16 tools.
- Offer C-axis for turn-mill machining job.
- Load/Unload system available.
- High pressure pump available.



Y-AXIS POWER TURRET+GANG TOOL

- The slide plate for gang-tool can mount 5-tools for Y-axis power turret at 4000 rpm, totally 9~10 tools.
- Offer C-axis for turn-mill machining job.
- Load/Unload system available.
- High pressure pump available.

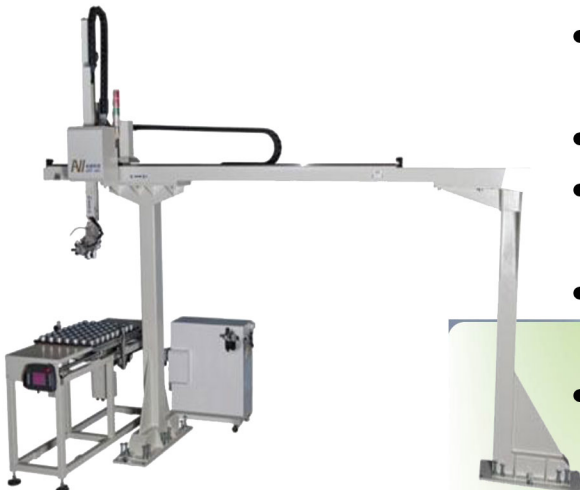
AUTOMATION ACCESSORIES

High precision, high speed, and low machining cost are important for shop owner to reduce idle time and keep their machines making chips and making money. ML-430 is designed for no tool-change, meet the automation production. It can accommodate with many customer-made automation



BAR FEEDER

- Low investment and many choice of suppliers.
- Bar feeders save manpower and provide greater productivity by automatically feeding bar stock into the machine after each part is completed. It's suitable for various pole, square rod and bar of hex. section. Achieve automatic machining and production efficiency increment.



VIBRATOR FEEDER

- Customer-made design is available.
- Quick part feeding, suitable for small parts with short cutting time.
- Apply for small parts but mass production, automatic loading/unloading system.



GANTRY ROBOT

- Suitable for parts of regular shape and long machining time.
- Can offer far distance parts transport.
- The parts gripper needs to be changed when the parts is changed.
- For mass production, the rotary work tables can fulfill this requirement.
- Work with bar feeder and gantry loading system, work cells of small parts for increased productivity and efficiency of lathes