



CNC Lathe

Auto Load / Unload System

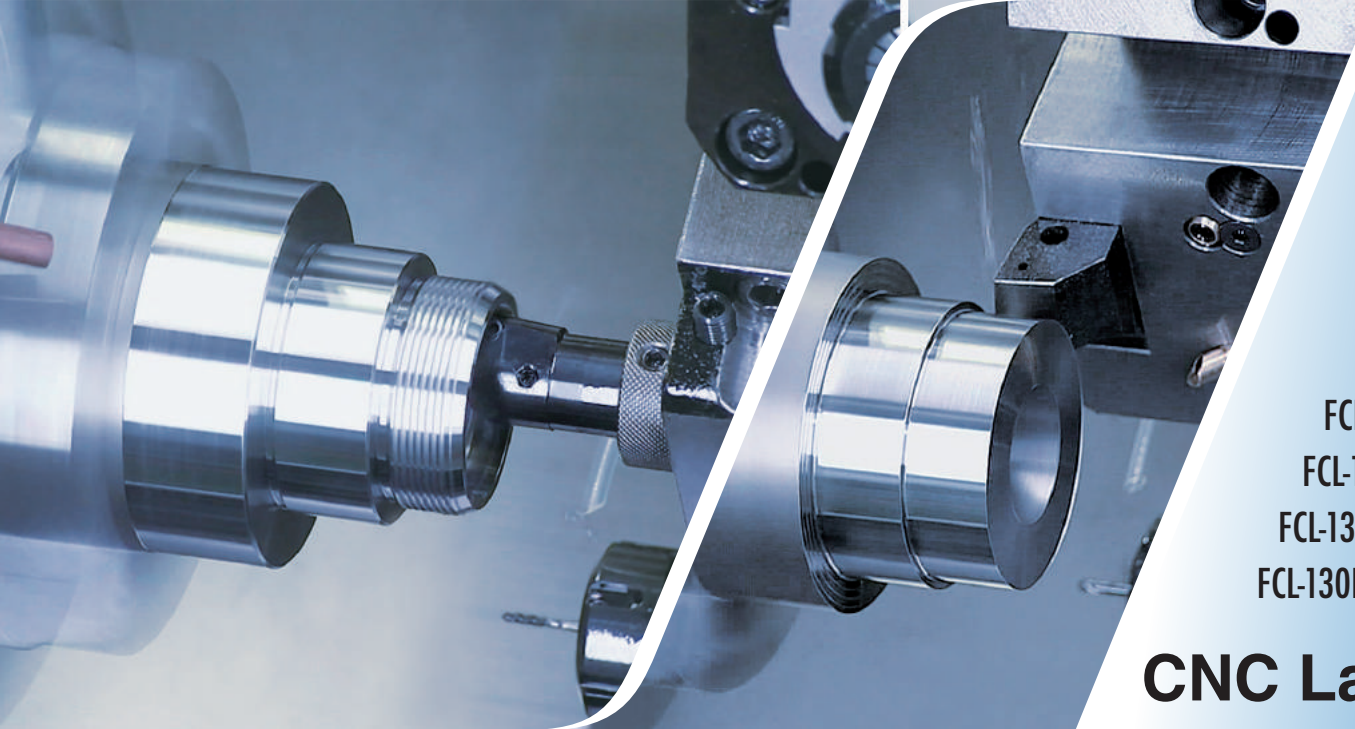
FCL-130

FCL-130A

FCL-130R

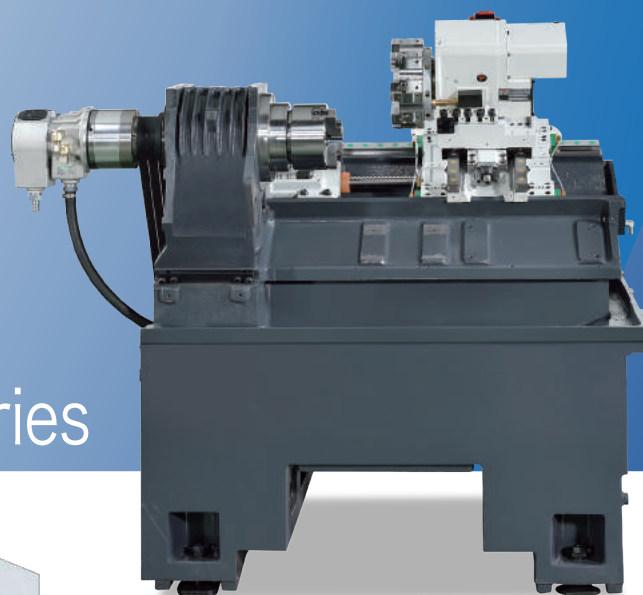
FCL-130RP





FCL-130
FCL-130A
FCL-130R
FCL-130RP

CNC Lathe



FCL series

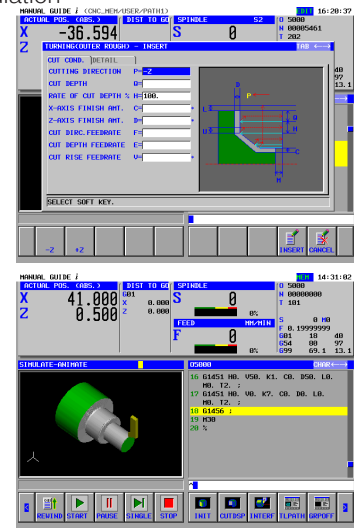


Small Floor Space

Compact design with machine length 1802mm makes the plant and automatic production line layout easier.

FANUC

Optional Manual guide I function provides display operation and 3D machining simulation

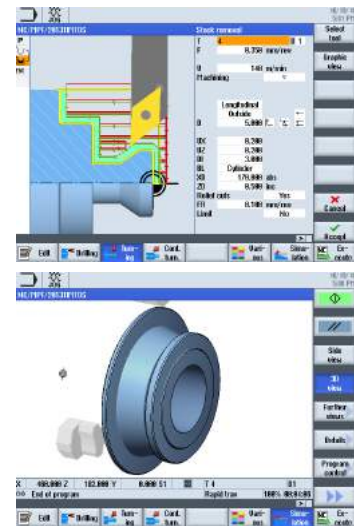


Controller



SIEMENS

10.4" TFT LCD makes the operation easier. Optional SHOPTURN function provides graphical user interface, the operators could easily complete the programming without G codes.



- Dual-display simultaneous simulation
- 3D simulation
- 3D section view

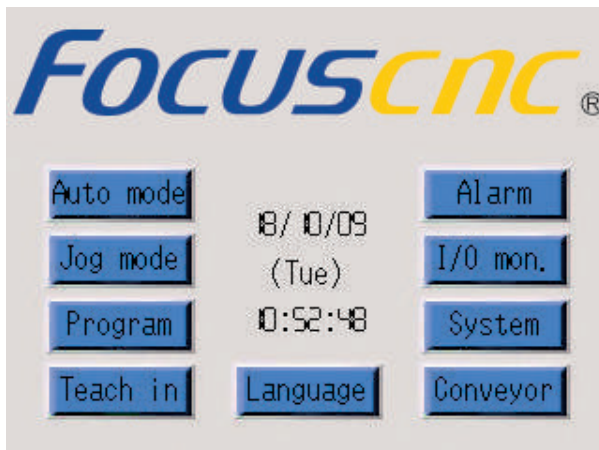


SYNTEC

The programming could be easily completed with various build-in machining cycles under graphical user interface. It is convenient to inspect the programs by graphical simulation function.

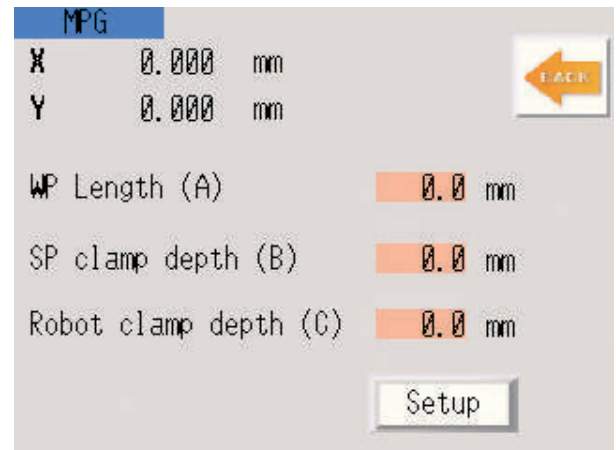


Auto Load / Unload System



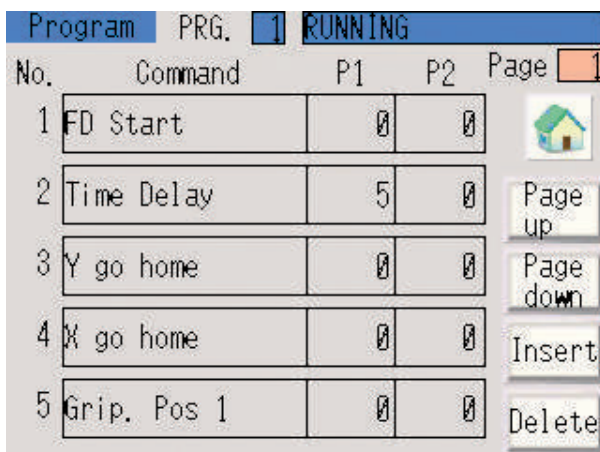
Graphical User Interface

The operation of robot system is easy with graphical user interface and 5.7" TFT-LCD.



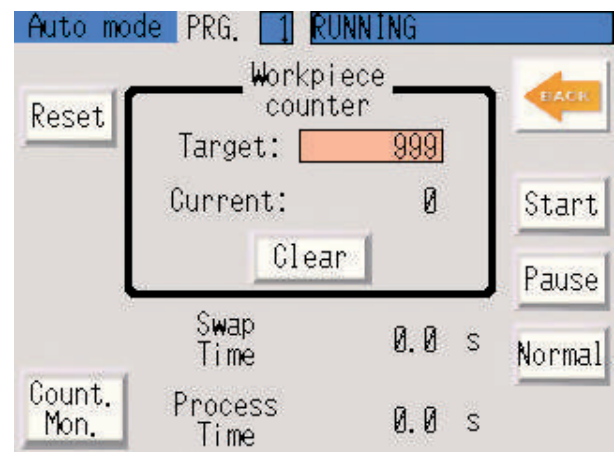
Quick Setup for Different Workpieces

Process different workpieces with build-in robot program, what you have to setup are 3 values only. You can start the work with new workpieces in short time.



Customized Program

It's easy to operate the robot system with build-in robot program. You can edit your own robot program according to your processing requests.



Workpiece Counter

The built-in workpiece counter makes the workpiece management easier.

Parallel Type Gripper

Efficient Loading / Unloading

The loading of raw workpiece and unloading of finished workpiece can be processed at the same time with parallel type gripper. It shortens the producing time.

Easy Jaw Modification

Easy to modify the soft jaws on robot grippers with the molds as standard accessory when you want to process different workpieces.

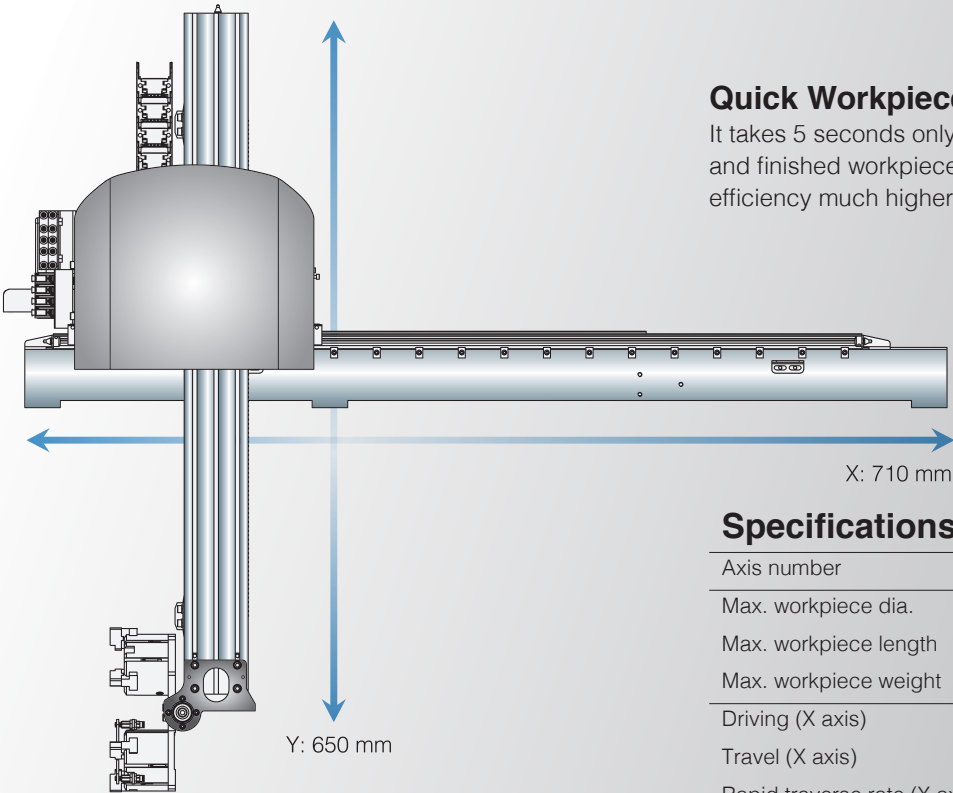
Fast & Accurate Movement

The robot system is driven with ball type linear guide ways to makes the movement fast and accurate.



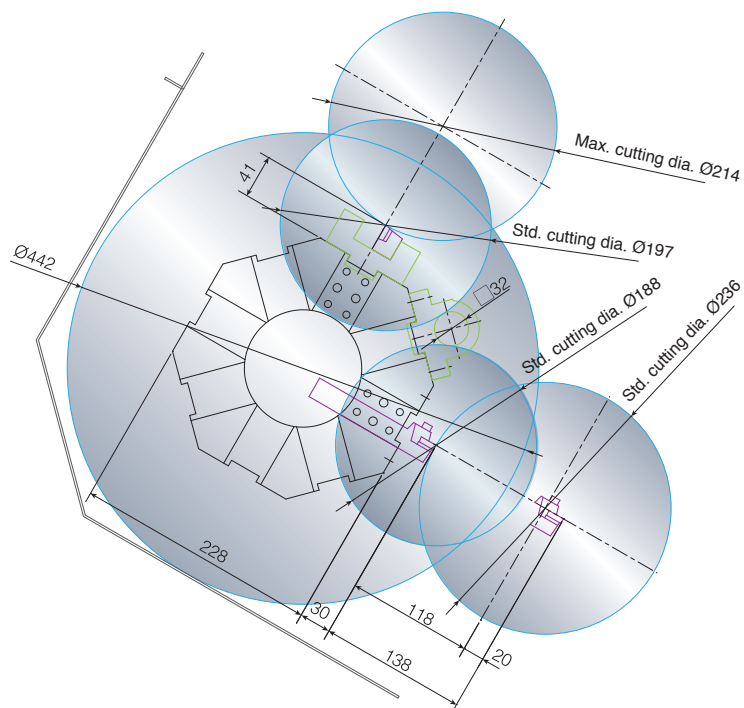
Quick Workpiece Swap

It takes 5 seconds only to swap raw workpiece and finished workpiece and makes the production efficiency much higher.



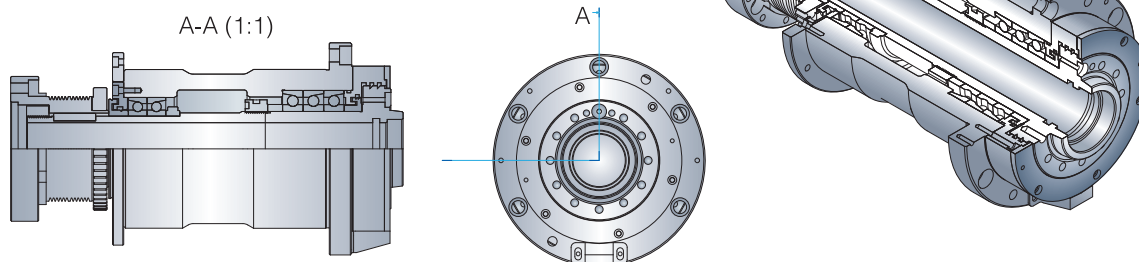
Specifications of Gantry Robot

Axis number	axis	2
Max. workpiece dia.	mm	Ø80
Max. workpiece length	mm	100
Max. workpiece weight	kg	1.5 / 3
Driving (X axis)		Servo motor
Travel (X axis)	mm	710
Rapid traverse rate (X axis)	m/min	90
Driving (Y axis)		Servo motor
Travel (Y axis)	mm	650
Rapid traverse rate (Y axis)	m/min	90
Gripper travel	mm	8 (Ø16)



High Precision Spindle

The spindle is equipped with Ø80mm high runout accuracy angular contact ball bearing. It performs superior precision during high speed cutting.

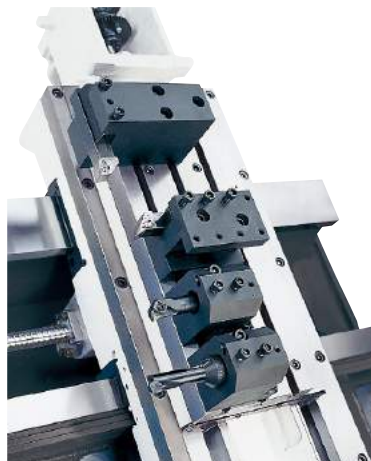
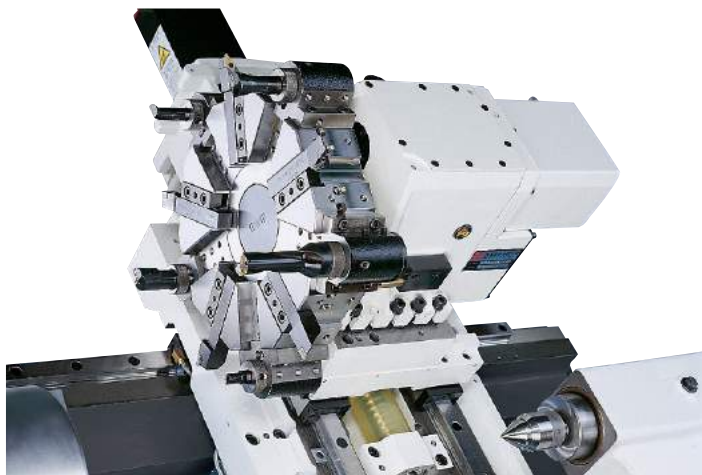


8-tools Hydraulic Turret

Fast indexing speed 0.25 second. Available for optional servo motor

4-tools Gang Type Working Table

The tool change time is shorter with gang type working table. It makes the cycle time shortened and provides a competitive price.

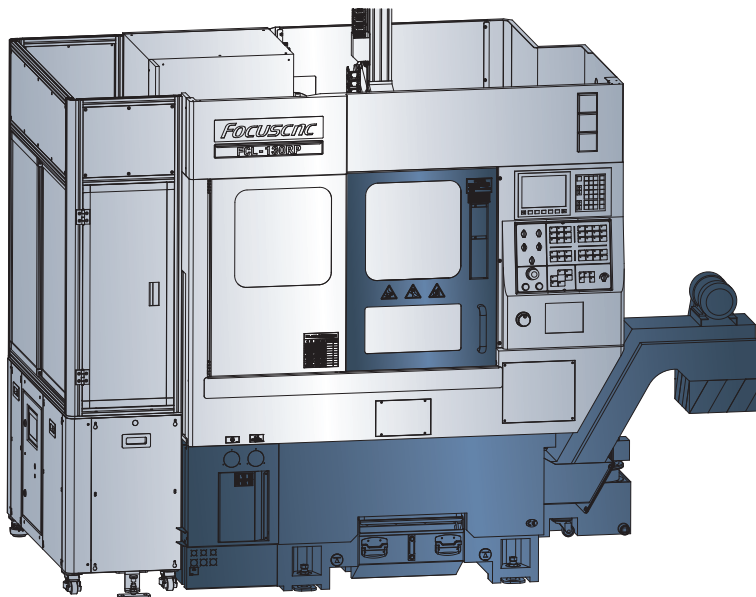


Disk Type Feeding Station



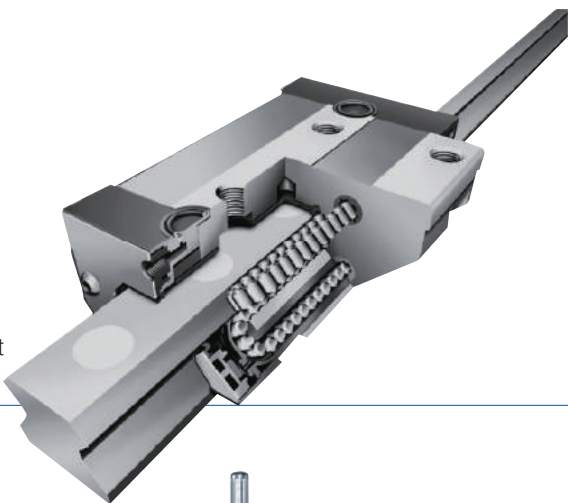
12 Disks

Workpiece diameter	Ø20~120mm
Loading capacity	30 kg



Rigid Guideways

Equipped with superior rigidity roller type linear guideways that delivers high precision and high speed movement



Outstanding Machine Structure

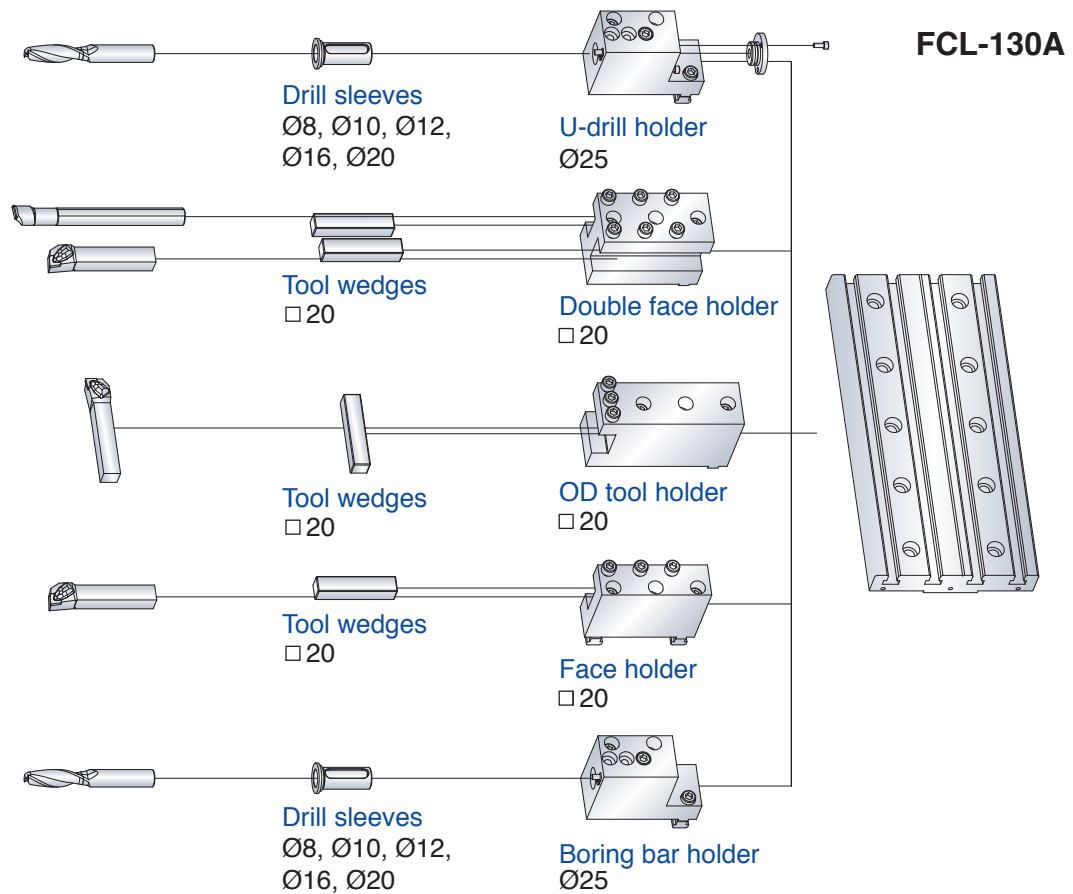
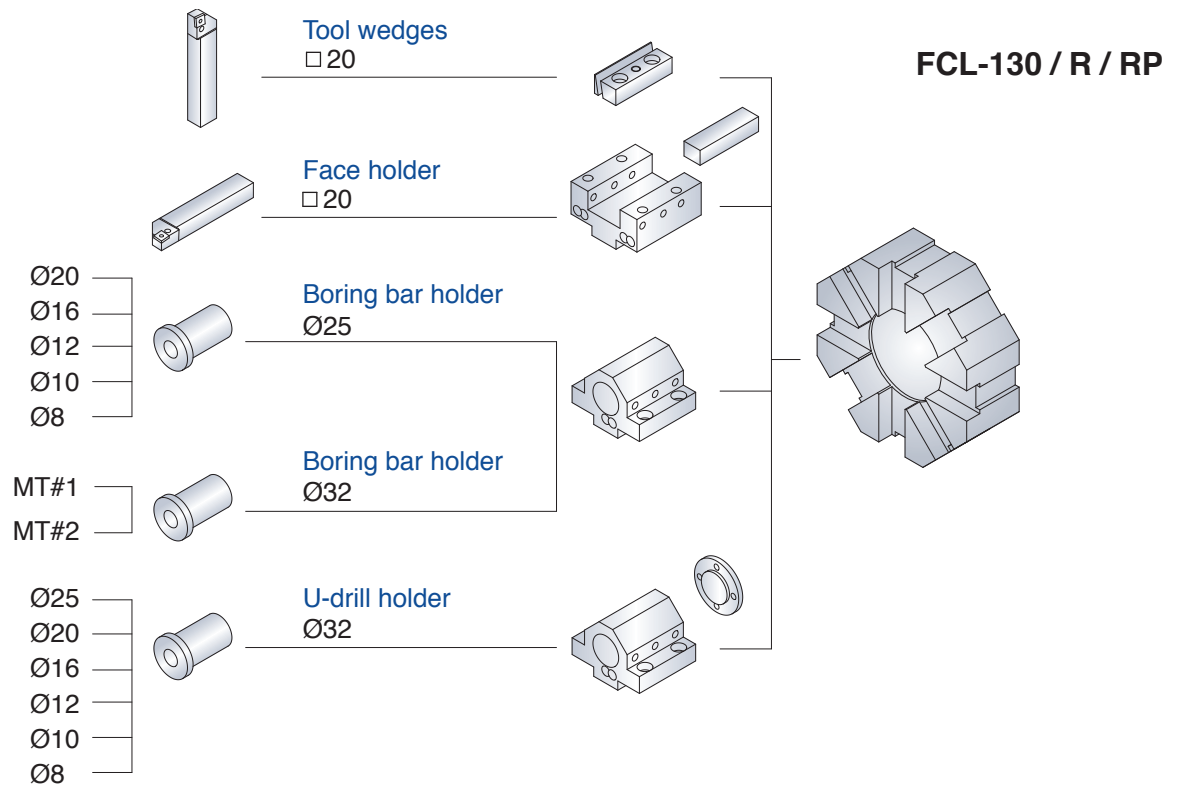
30-degree slant bed provides high-stiffness capacity, long-term stability and excellent chip removal capability. Compact design makes the machine length shorter and the floor space smaller.

Flexible Chip Removal Direction

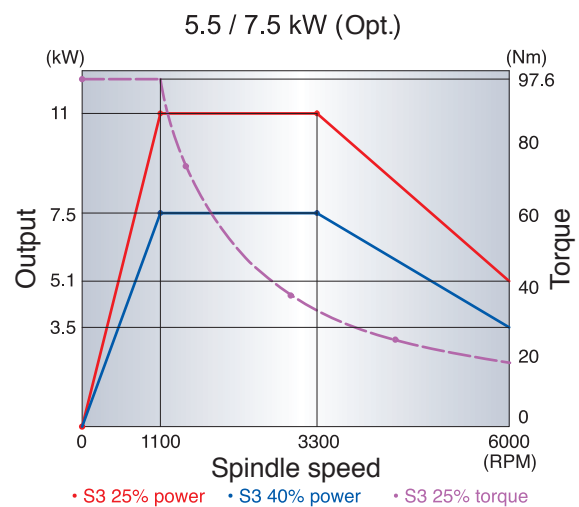
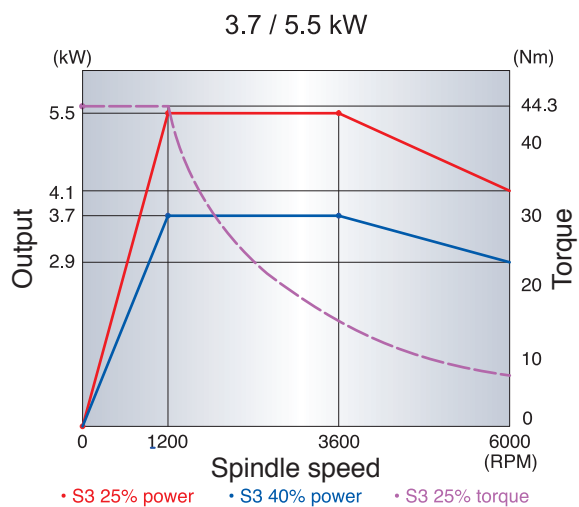
To efficiently utilize the floor space, the chips can be discharged from the side or rear of the machine. You can clean the coolant tank from the front of the machine to make the plant layout easier.



Unit: mm



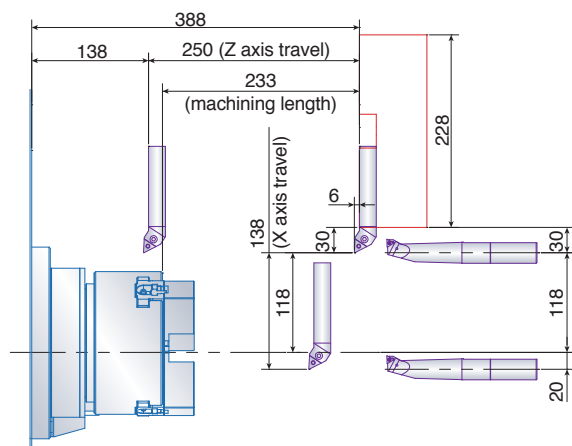
Torque Diagram



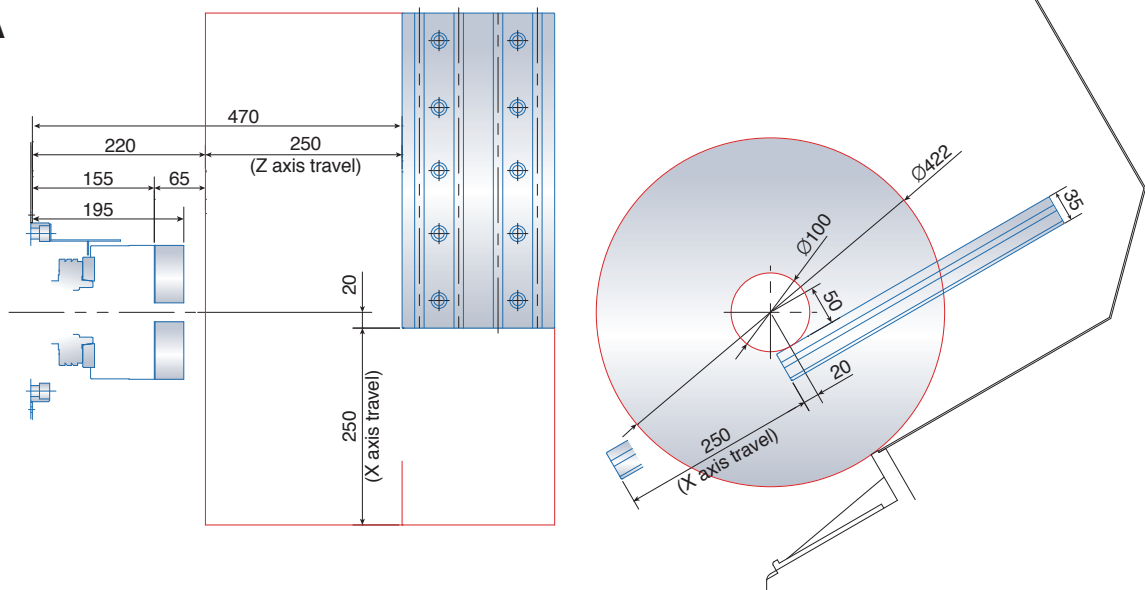
Machining Zone

Unit: mm

FCL-130 / R / RP



FCL-130A



Machine Specifications

Item		Unit	FCL-130A	FCL-130	FCL-130R	FCL-130RP
Capacity	Swing over bed	mm	Ø443	Ø443	Ø443	
	Swing over saddle	mm	Ø100	Ø310	Ø310	
	Standard cutting dia.	mm	–	Ø188	Ø188	
	Max. cutting dia.	mm	–	Ø236	Ø236	
	Max. cutting length	mm	250	233	233	
	Chuck size	inch	6		6	
	Spindle nose	ASA	A2-5		A2-5	
	Spindle through-hole dia.	mm	Ø56		Ø56	
	Bar capacity	mm	Ø45		Ø45	
Spindle	ID of front bearing	mm	Ø80		Ø80	
	Max. spindle speed	RPM	6000		6000	
	Spindle motor	kW	3.7 / 5.5 (5.5 / 7.5)		3.7 / 5.5 (5.5 / 7.5)	
Turret	Number of tools		4	8	8	
	OD tool size	mm	20 x 20		20 x 20	
	Boring bar size	mm	Ø25	Ø32	Ø32	
Travel	X axis travel	mm	250	138	138	
	Z axis travel	mm	250		250	
Motor	X axis servo motor	kW	0.75 (1.2)		0.75 (1.2)	
	Z axis servo motor	kW	0.75 (1.2)		0.75 (1.2)	
Rapid Traverse Rate	X axis rapid traverse rate	m/min	30		30	
	Z axis rapid traverse rate	m/min	30		30	
	X axis guideway type		Roller type		Roller type	
	Z axis guideway type		Roller type		Roller type	
Tailstock	Center travel	mm	–	130	–	
	Quill dia.	mm	–	60	–	
	Center taper		–	MT#3	–	
Coolant tank	Capacity	L	95 (150)		95 (150)	
Hydraulic tank	Capacity	L	30		30	
Machine weight		kg	2100		2200	2300

Automatic Loading / Unloading System

Workpiece	Robot type		–	Gantry
	Axis number of robot		–	2
	Max. workpiece dia.	mm	–	Ø80
	Max. workpiece length	mm	–	100
	Max. workpiece weight	kg	–	1.5

Standard & Optional Accessories

● Standard Accessories
 △ Optional Accessories

Item	FCL-130A	FCL-130	FCL-130R	FCL-130RP
6" hydraulic chuck	●	●	●	●
Hard jaws (set)	1	1	1	1
Soft jaws (set)	1	1	1	1
Boring bar holder	1	4	4	4
Face holder	1	1	1	1
OD tool holder	1	–	–	–
Double face holder	1	–	–	–
Tool sleeves Ø8-25 (set)	1	1	1	1
Moveable coolant tank	●	●	●	●
Leveling bolts and pads	●	●	●	●
Centralizing lubrication system	●	●	●	●
Working lamp	●	●	●	●
Foot pedal for hydraulic chuck	●	●	●	●
Coolant pump	●	●	●	●
Tool kits (set)	●	●	●	●
Operation manual	●	●	●	●
Chip conveyor	●	●	●	●
Collet chuck	△	△	△	△
Hydraulic tailstock	–	△	–	–
Manual tool setter	△	△	△	△
Automatic tool setter	△	△	△	△
Parts catcher	△	△	△	△
Automatic door	△	△	–	–
Oil skimmer	△	△	△	△
Bar feeder	△	△	–	–
Oil-mist collector	△	△	△	△
Air blowing for workpieces	△	△	●	●
3-Color warning light	●	●	●	●
Transformer	△	△	△	△
CE safety accessories	△	△	△	△
MT#3 live center	–	△	–	–
Foot pedal for tailstock	–	△	–	–

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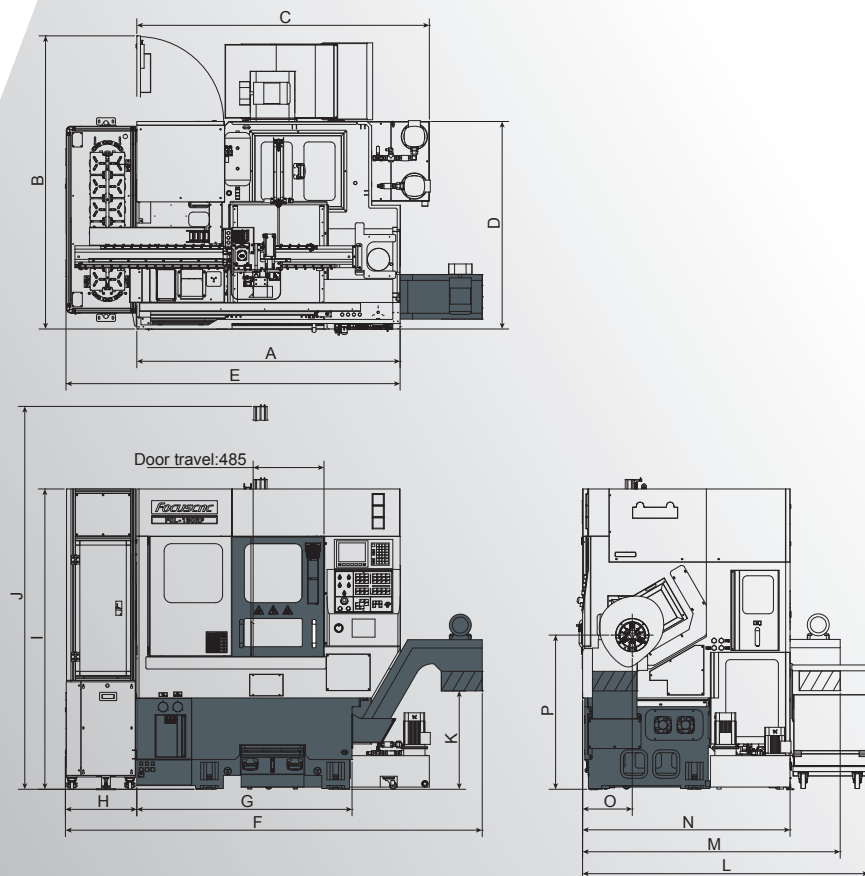
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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
FCL-130	1802	2006	1916	1420	-	2364	1473	-	1557	2012	673	1958	1763	1420	340	1055
FCL-130A	1802	2006	1916	1420	-	2364	1473	-	1557	2012	673	1958	1763	1420	340	1055
FCL-130R	1802	2006	1916	1420	2206	2768	1473	404	2055	2620	673	1958	1763	1420	340	1055
FCL-130RP	1802	2006	2002	1420	2287	2853	1473	489	2055	2620	673	1958	1763	1420	340	1055

Specifications are subject to change without notice