



THE ULTIMATE MACHINING POWER

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EXTRONCNC.com

L Series

High Speed
Vertical Machining Center

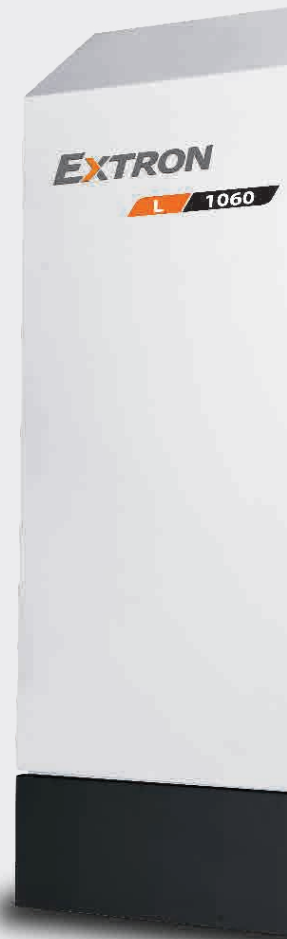


EXTRON

THE ULTIMATE MACHINING POWER

With 40 years experience of manufacturing machine tools, EXTRON has continuously developed and provided creative machine tools for global customers. We're always looking for solutions to improve our products and give you the better quality, reliable machines and service.

- 3 axes adopt high speed and high precision linear guide ways design to fulfill machining requirements of high speed and high precision which is very suitable for dies & molds, aerospace, automobile and medical industries.
- High speed 15,000 rpm direct drive spindle is available for option to provide full power output from spindle motor with no backlash to ensure high quality and high accuracy of surface treatment.
- CNC tilting rotary table is available for option to provide machining application of compound angular cutting.
- Powerful coolant nozzles around spindle featured with high pressure flush coolant design ensure smooth machining processes and outstanding machining accuracy.



HIGH SPEED VERTICAL MACHINING CENTER

L-660 / L-800 / LU-85
/ L-860 / L-1060 / L-1320

The L series features high speed linear guide ways and high speed spindle with rigid casting body and fast ATC system to achieve high efficiency and excellent accuracy. Along with design differentiation strategy and high CP value, the L series fulfills various machining needs from now and future.



- The Finite Element Analysis (FEA) is used on all castings to ensure high rigidity structure and minimize deformation.
- The Meehanite casting structure and A-shaped column design provide solid support to efficiently enhance structure rigidity.
- The massive structure of bed, column, and table are all adopted with specialized enforced cross ribs design that offers the best stability and precision for constantly machining.
- Wide span of column with enforced cross ribs design makes sure no shake occurrence on head stock while high speed shifting to provide outstanding machining rigidity and stability.
- One-piece wide bed structure with linear guide ways and heavy load ball screw eliminates over-hang issue of working table to ensure optimal solid support.

Rapid Axial System



- C3 class ball screw with double nuts ensures optimal accuracy and long-lasting. Besides, pre-tension design on all axes eliminates thermal deformation to ensure outstanding machining accuracy.
- 3 axes are adopted with direct drive AC servo motor to ensure great heavy load ability, high dynamic precision and fast acceleration / deceleration.

36 / 36 / 30 m/min

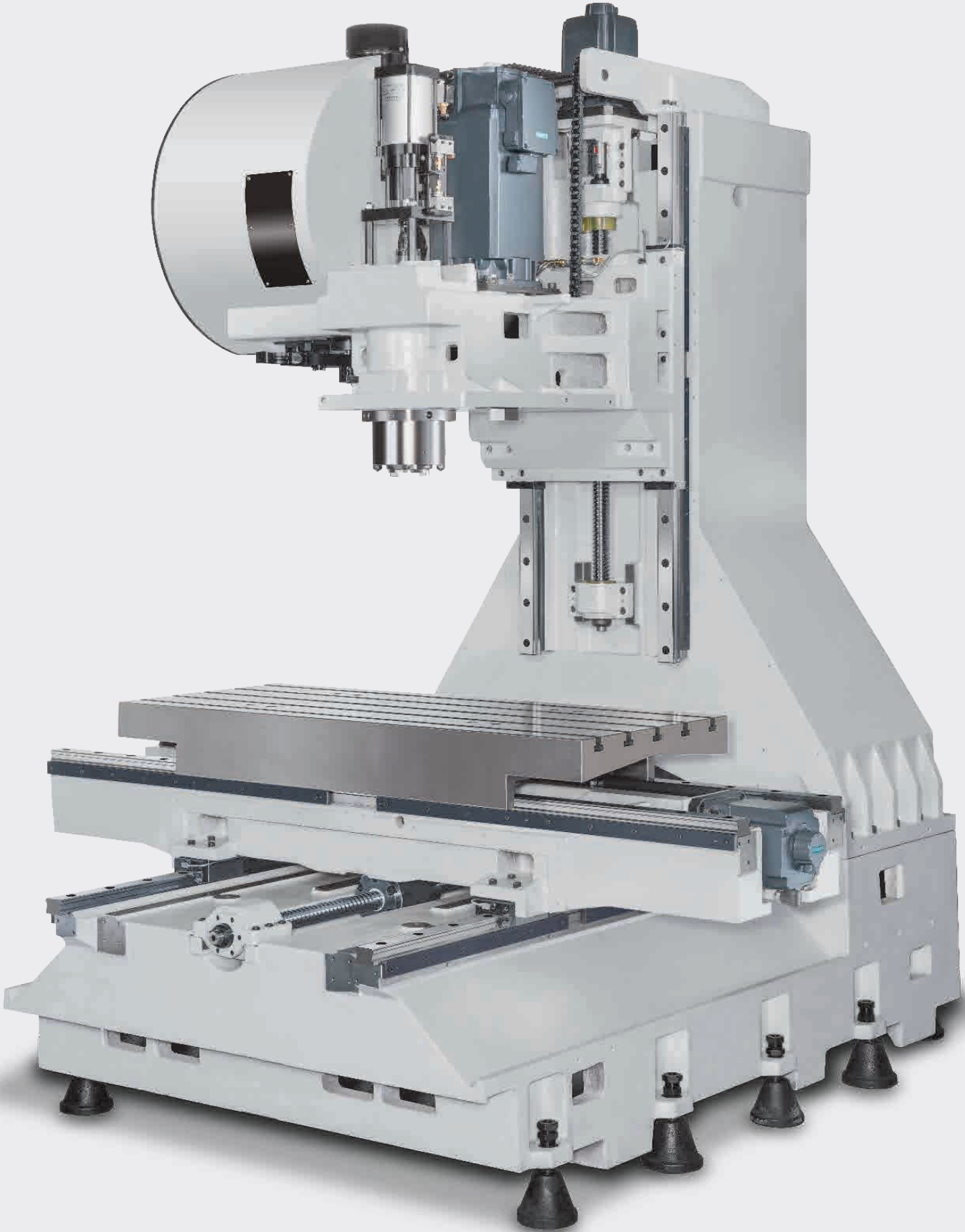
X / Y / Z axes rapid feed rate

10 / 10 / 10 m/min

X / Y / Z cutting feed rate

SUPER RIGID STRUCTURE

L-660 / L-800 / LU-85
/ L-860 / L-1060 / L-1320

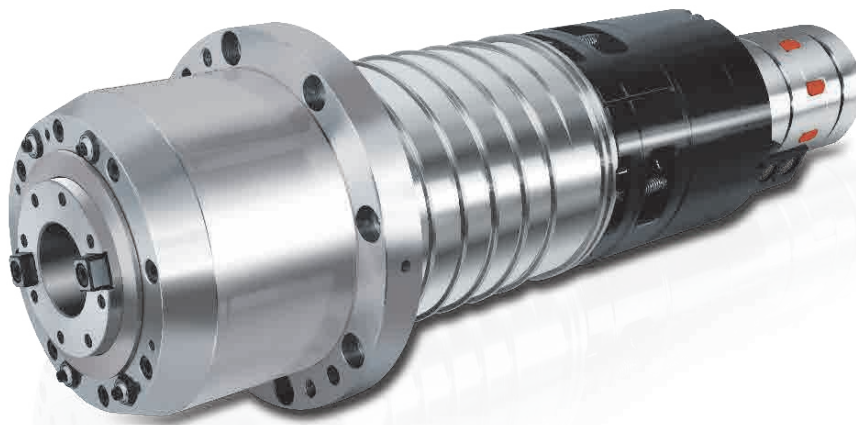


Unique Spindle System

- Depend on machining characteristics, gear drive system provides high torque machining, or high speed direct drive system is also available for specific high accuracy dies & molds machining.
- High speed 15,000 rpm direct drive spindle provide high machining accuracy due to isolating heat from motor.
- Equipped 2-step German made ZF gear box provides high torque heavy cutting capability at low rpm. (Option L1060 / L1320)
- Spindle frame is adopted enforced steel alloy and 3 sets of bearing. Spindle motor runs through dynamic balancing to ensure quality is beyond G0.4 high accuracy balancing according to ISO 1940 standard while ensuring spindle run-out less than 0.003mm.

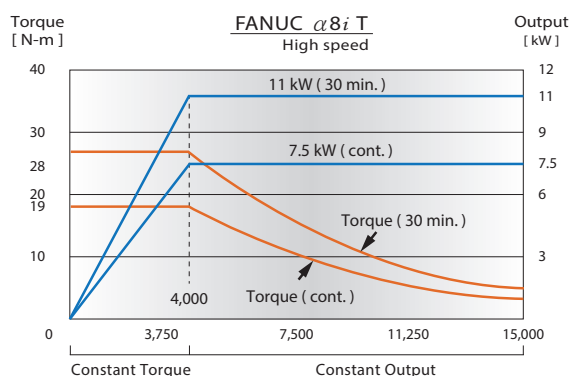
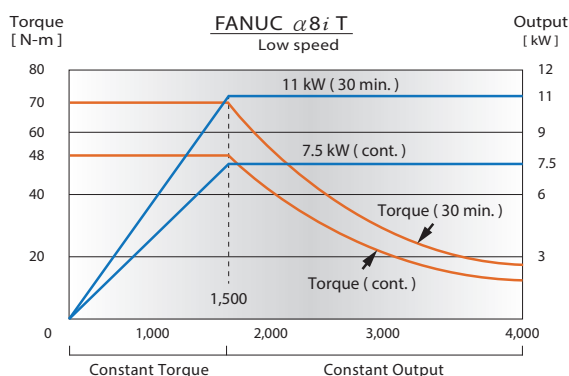


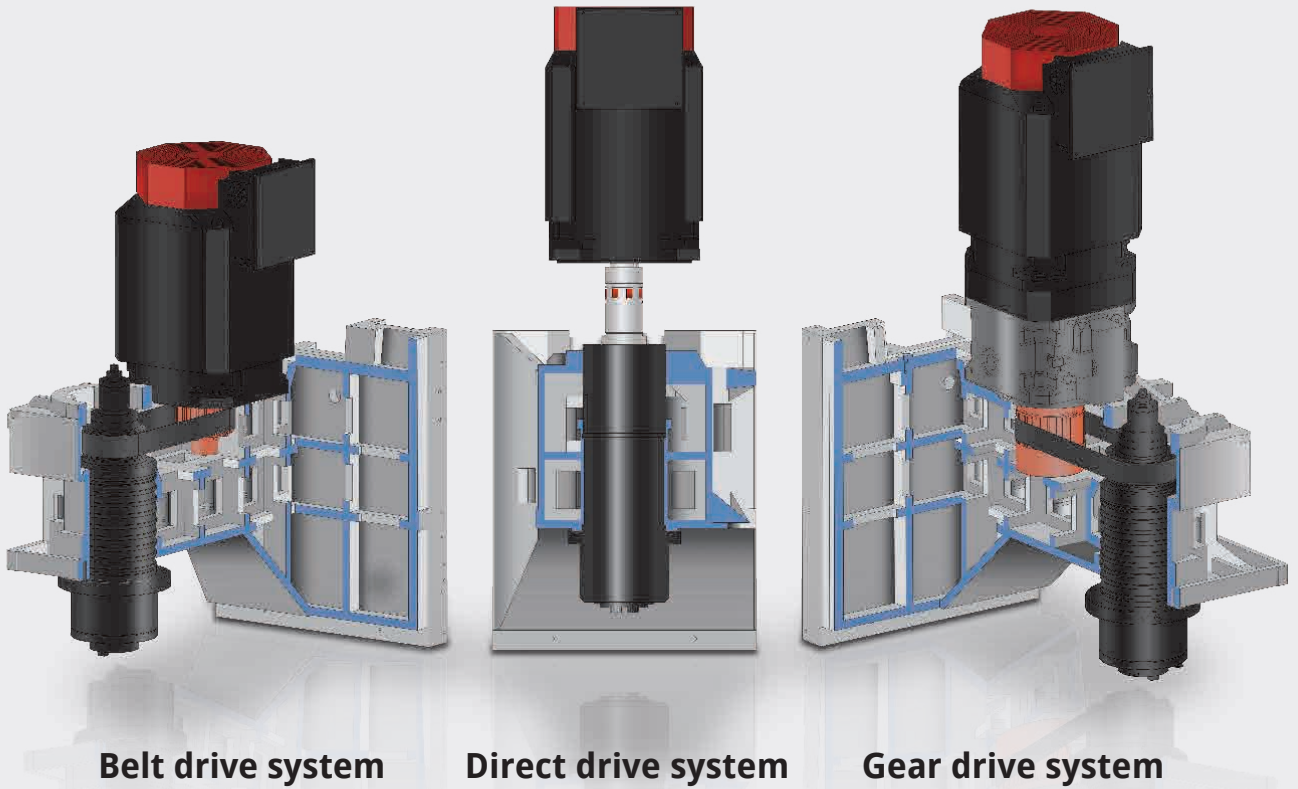
All series are standard with spindle chiller to eliminate thermal deformation and ensure high accuracy and long lasting.



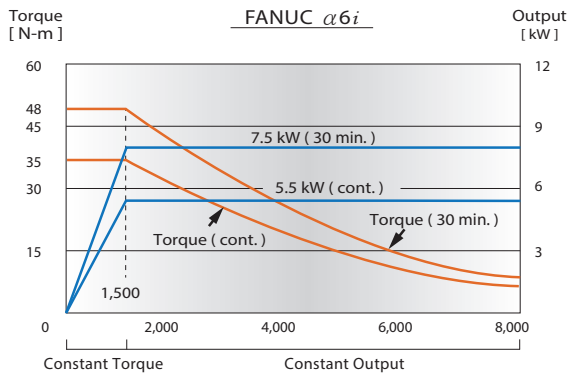
BT 40

15,000 rpm Direct drive Spindle

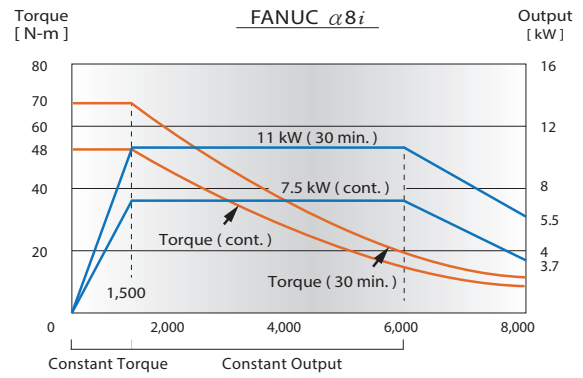




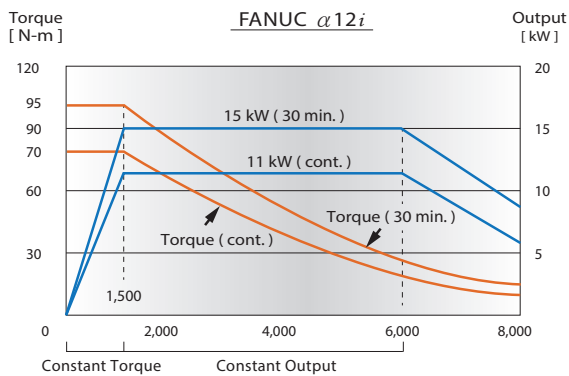
BT 40 8,000 rpm Belt drive Spindle



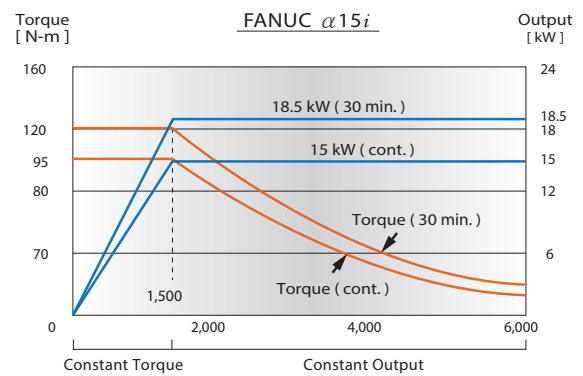
BT 40 8,000 rpm Belt drive Spindle



BT 40 8,000 rpm Belt drive Spindle



BT 50 6,000 rpm Belt drive Spindle



Fast and Reliable ATC System



- Equipped with high efficiency ATC system which provides reliable and smooth tool changing without delay.

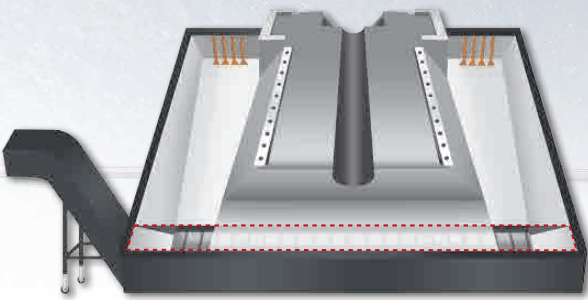


High Efficiency Chips Removal



■ Side exit type

High pressure chips flush coolant
Screw type chip auger x 1



■ Side exit type **Option**

High pressure chips flush coolant
Caterpillar type chip conveyor

Dimensions

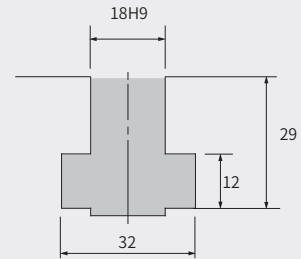
Table Dimensions



Model	A	B	C	D
L660	2,540	3,190	2,173	2,355
L800	2,540	3,190	2,173	2,355
LU-85	2,510	3,060	2,610	2,610
L860	2,800	3,460	2,180	2,450
L1060	3,000	3,660	2,280	2,540
L1320	3,360	3,960	2,720	2,875

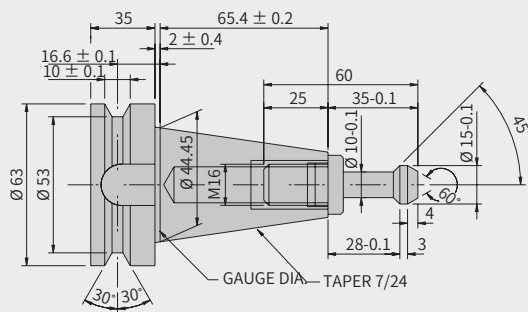
T-slot Dimensions

(Unit : mm)

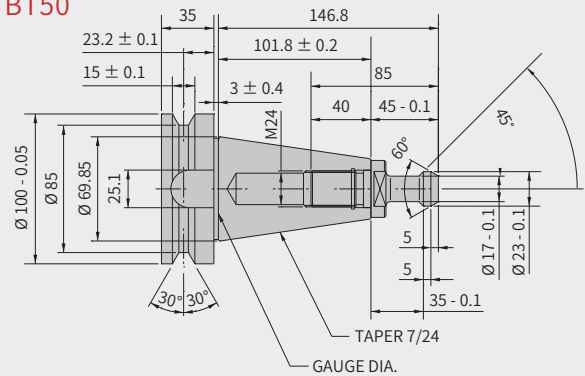


Tool Shank and Pull Stud Dimensions

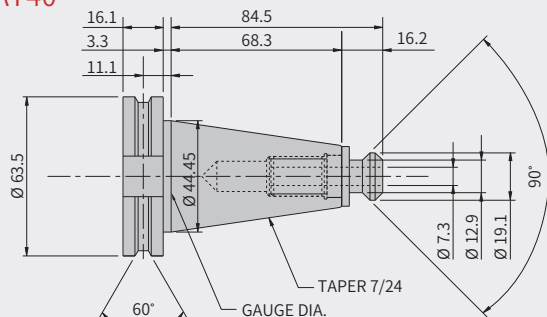
BT40



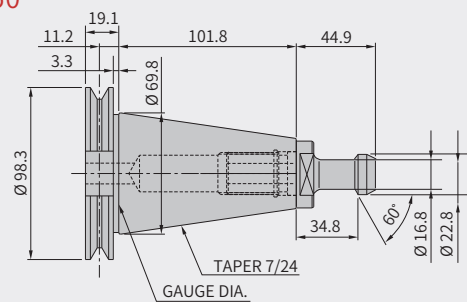
BT50



CAT40

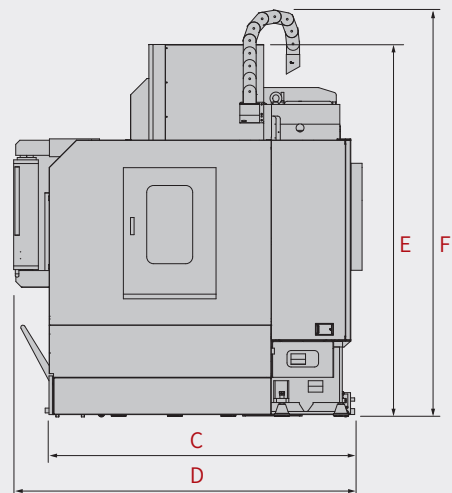
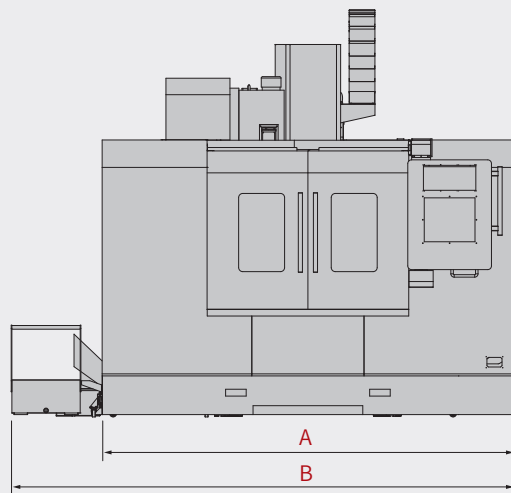
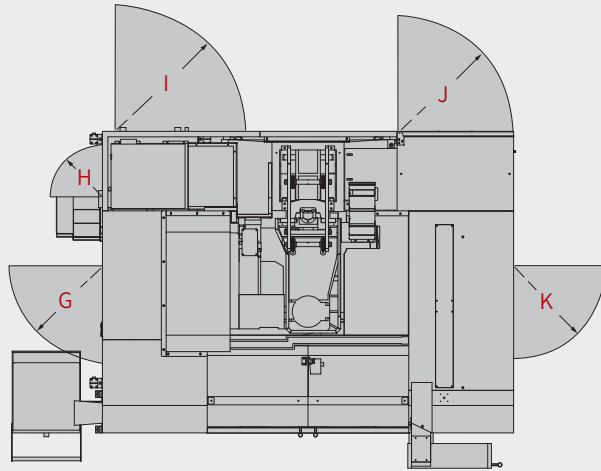


CAT50



Machine Dimensions

(Unit : mm)



Model	A	B	C	D	E	F	G	H	I	J	K
L660	2,540	3,190	2,173	2,355	2,420	2,470	750	380	950	845	750
L800	2,540	3,190	2,173	2,355	2,490	2,520	750	380	950	845	750
LU-85	2,510	3,060	2,610	2,640	2,960	3,165	700	-	560	850	700
L860	2,800	3,460	2,180	2,450	2,720	2,750	750	-	680	850	750
L1060	3,000	3,660	2,280	2,540	2,710	2,970	680	380	950	850	680
L1320	3,360	3,960	2,720	2,875	2,760	2,970	700	-	400	850	700

SPECIFICATIONS		L660	L800
X-axis travel	mm	660	800
Y-axis travel	mm	460	510
Z-axis travel	mm	510	610
Distance from spindle center to column	mm	518	589
Distance from spindle center to table top	mm	150 ~ 660	140 ~ 750
WORKING TABLE			
Table size	mm	760 x 456	900 x 456
T-slot (width x no. x space)	mm	18 x 4 x 110	18 x 4 x 120
Table load capacity	kg	500	600
SPINDLE			
Spindle motor (cont. / 30 min)	kW	5.5 / 7.5	
Spindle speed	rpm	Belt drive 8,000 (Opt. 10,000) Direct drive 10,000 (Opt. 12,000 / 15,000)	
Spindle taper		# 40	
FEED RATE			
X / Y / Z axes rapid feed rate	m/min.	36 / 36 / 30	
Cutting feed rate	m/min.	10	
TOOL MAGAZINE			
Tool magazine capacity	T	Carousel type 16 (20) / Arm type 24	
Max. tool diameter / adj. pocket empty	mm	Ø 78 / Ø 150	
Max. tool length	mm	300	
Max. tool weight	kg	7	
ACCURACY			
Positioning accuracy (JIS B 6338)	mm	± 0.010 / Full Travel	
Positioning accuracy (VDI 3441)	mm	P ≤ 0.010 / Full Travel	
Repeatability (JIS B 6338)	mm	± 0.003	
Repeatability (VDI 3441)	mm	Ps max ≤ 0.005	
GENERAL			
Control system		FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN	
Power requirement	kVA	19	
Pneumatic pressure requirement (min.)	kg/cm ²	5 ~ 8 (5)	
Coolant tank capacity (pump)	liter	240 (1)	
Machine weight	kg	4,500	5200

Standard Accessories

Spindle chiller	Centralized automatic lubricating system	Alarm light
Coolant nozzles around spindle	Chips flush coolant system	Halogen work light
Fully enclosed splash guard	Air gun system	Operation manual
Coolant system with pump and tank	Automatic power off system	Adjusting tools & tool box
Screw type chip auger	Leveling bolts & pads	

LU-85		L860	L1060	L1320	
860			1,060	1,320	
540			610	710	
770		660	680	700	
611			671	782	
170 ~ 940		150 ~ 810	120 ~ 820	# 40 : 130 ~ 830	# 50 : 95 ~ 795
932 x 502			1,258 x 510	1,520 x 700	
18 x 4 x 130			18 x 5 x 100	18 x 5 x 145	
600			700	1,500	
7.5 / 11			11 / 15 (Opt. 15 / 18.5)	15 / 18.5 (Opt. 18.5 / 22)	
Direct drive 12,000 (Opt. 15,000)	Belt drive 8,000 (Opt. 10,000) Direct drive 10,000 (Opt. 12,000 / 15,000 / 20,000)			Belt drive 8,000	
# 40			# 40	# 50	
36 / 36 / 30					
10					
Arm type 24 (Opt. 30 / 36)			Arm type 24 (Opt. 30 / Chain type 40)		
Ø 78 / Ø 150			Ø 80 / Ø 150	Ø 125 / Ø 250	
300			300	300	
7			7	15	
± 0.010 / Full Travel					
P ≤ 0.010 / Full Travel					
± 0.003					
Ps max ≤ 0.005					
FANUC / MITSUBISHI / SIEMENS / HEIDENHAIN					
38	32		42	48	
5 ~ 8 (5)					
240 (1)					
6,500	5,800		6,500	8,500	

Specifications are subject to change without notice.

Optional Accessories

ZF gear box	Oil skimmer	CNC rotary table
15,000 rpm direct drive spindle	Oil mist system	AC cooler for electrical cabinet
Coolant through spindle (20 bar)	Automatic tool length measurement	Caterpillar type chip conveyor
X / Y / Z axes optical linear scale	Automatic work-piece measurement	Automatic voltage regulator