

600/700/800 Series

L600 Series | L700 Series | L800 Series | L800D Series

WIA Machine Tools Heavy Duty CNC Turning Center

Technical Leader

The CNC Turning Center L600/700/800 Series designed by WIA machine tools with years of expertise and the latest technology, is a Turning Center that maximizes productivity and performance.

ITEM	Chuck								Bed		Turret	
	18"	21"	24"	24"	27"	32"	32"	34"	Std.	Long	Std.	Mill
	Hydraulic	Hydraulic	Hydraulic	Independent	Air	Hydraulic	Independent	Air				
L600A	○	○	○						●		●	
L600LA	○	○	○							●	●	
L600MA	○	○	○						●			●
L600LMA	○	○	○							●		●
L700A			○			○			●		●	
L700LA			○			○				●	●	
L700MA			○			○			●			●
L700LMA			○			○				●		●
L800A				○	○	○			●		●	
L800LA				○	○	○				●	●	
L800MA				○	○	○			●			●
L800LMA				○	○	○				●		●
L800D							○	○	●		●	
L800LD							○	○		●	●	
L800MD							○	○	●			●
L800LMD							○	○		●		●

●: Standard ○: Option



600/700/800 Series

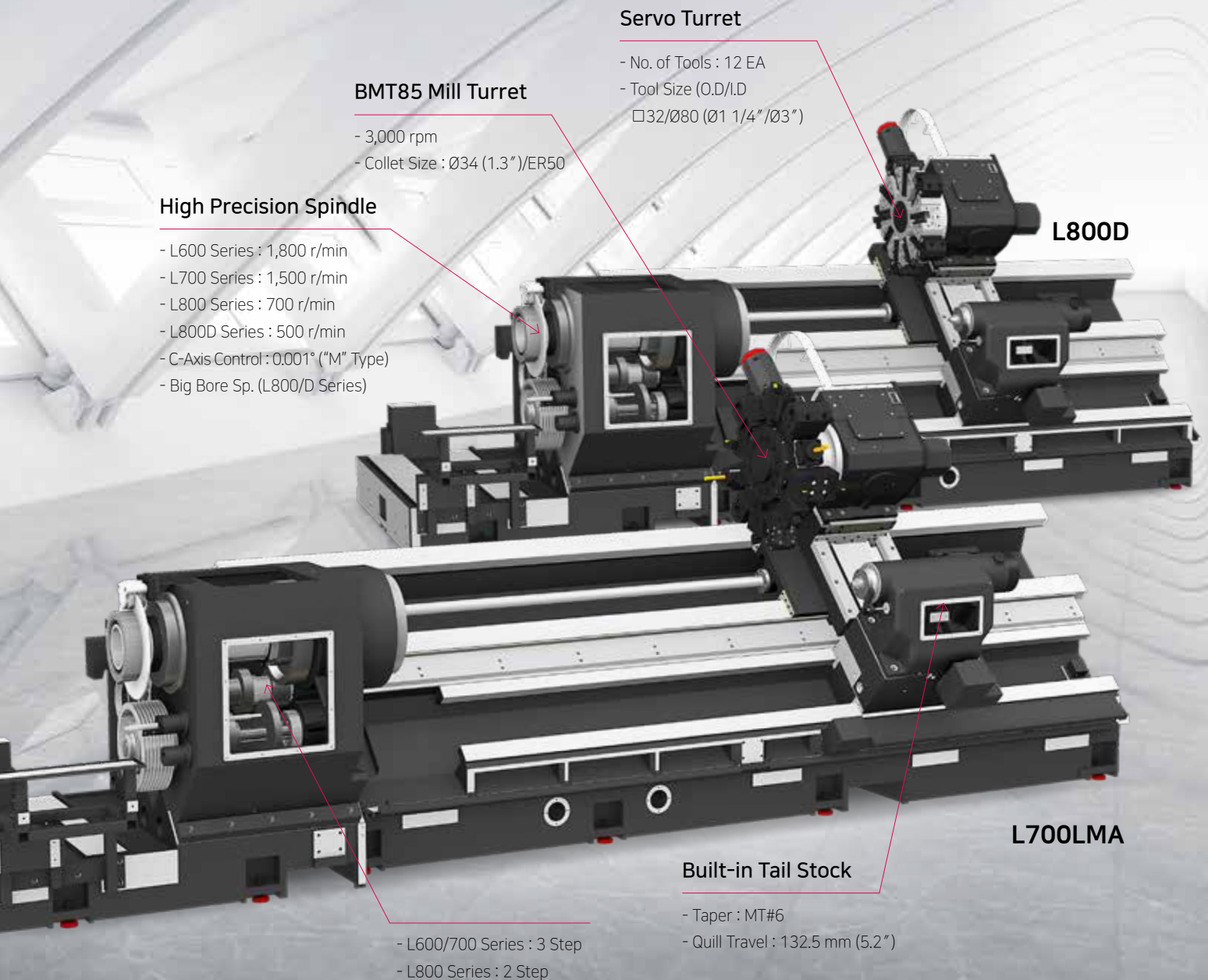
Heavy-Duty Cutting, Large Work Capacity, CNC Turning Center

- Sturdiness secured through box guideways on all axis
- One piece structure for high accuracy and rigidity
- Pretensioned double anchored method provides high precision
- Gear box type main spindle (L600/700 Series : 3 step / L800 Series : 2 step)
- Big Bore Spindle with a maximum spindle bore of $\varnothing 375$ ($\varnothing 14.8''$) (L800D Series)
- Structure designed for machining long shafts and pipes with maximum turning length of 3,250mm (128'') (Long Bed Type)



01 BASIC STRUCTURE

High Rigid Bed & Structure for Heavy Duty Cutting CNC Turning Center



BMT85 Mill Turret

- 3,000 rpm
- Collet Size : $\varnothing 34$ (1.3")/ER50

Servo Turret

- No. of Tools : 12 EA
- Tool Size (O.D/I.D)
 $\square 32/\varnothing 80$ ($\varnothing 1 \frac{1}{4}"/\varnothing 3"$)

High Precision Spindle

- L600 Series : 1,800 r/min
- L700 Series : 1,500 r/min
- L800 Series : 700 r/min
- L800D Series : 500 r/min
- C-Axis Control : 0.001° ("M" Type)
- Big Bore Sp. (L800/D Series)

L800D

L700LMA

Built-in Tail Stock

- Taper : MT#6
- Quill Travel : 132.5 mm (5.2")

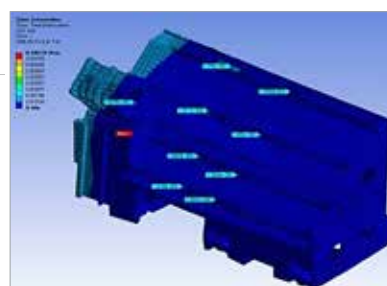
- L600/700 Series : 3 Step
- L800 Series : 2 Step

POWERFUL CUTTING CAPABILITY & WIDE CUTTING AREA

ALL-IN-ONE TYPE OF BED

High Precision & Rigidity, One-Piece Structure

The L600/700/800 series features a 45° slant bed design which is developed through finite element analysis (FEA) to effectively absorb vibration and minimize heat generation. The structure ensures stability which enables powerful and precise cutting.



Floor Space (L×W)

Standard Bed

7,077×3,075 mm
(278.6"×121.1")

Long Type Bed

8,715×3,075 mm
(343.1"×121.1")

GUIDEWAY

Box Guideway

The L600/700/800 Series, specialized in machining large products, features box guideways in all axis and gear driven main spindle.

The series demonstrates unsurpassed performance in heavy duty cutting.

Ball Screw

Travel is stabilized by fixing both ends of the ball screw with double anchored method. In particular, a large diameter ball screw with proper preload reinforces sturdiness and resistance to thermal displacement.



Travel (X/Z)

Standard Bed

500/1,680 mm (19.7"/66.1")

Long Type Bed

500/3,280 mm (19.7"/129.1")

02 HIGH PRECISION SPINDLE

Long Lasting, High Accuracy & Excellent Performance CNC Turning Center

Spindle Specifications

MODEL	Spindle Speed	Motor (Max./Cont.)	Torque (Max./Cont.)	Driving Method
L600 Series	1,800 rpm	45/37 kW (60/50 HP)	5,610/4,621 N·m (4,137.7/3,408.3 lbft·ft)	Belt + 3 Step Gear
L700 Series	1,500 rpm	45/37 kW (60/50 HP)	6,928/5,700 N·m (5,109.8/4,204.1 lbft·ft)	
L800 Series	700 rpm	45/37 kW (60/50 HP)	7,045/5,795 N·m (5,196.1/4,274.2 lbft·ft)	Belt + 2 Step Gear
L800D Series	500 rpm	45/37 kW (60/50 HP)	7,288/5,992 N·m (5,375.4/4,419.5 lbft·ft)	

HEAVY DUTY CUTTING & HIGH ACCURACY

MAIN SPINDLE

Spindle Ideal for Heavy Cutting

To accomplish advanced stability during heavy duty cutting, a combination of P4 double cylindrical roller bearings and angular bearings are adopted. The double locking device separates the spindle bearing and pulley to prevent a decrease in spindle bearing pretension during interrupted cutting, heavy duty cutting, chuck cylinder operations, and by belt pulley tension.

Spindle Gear Box

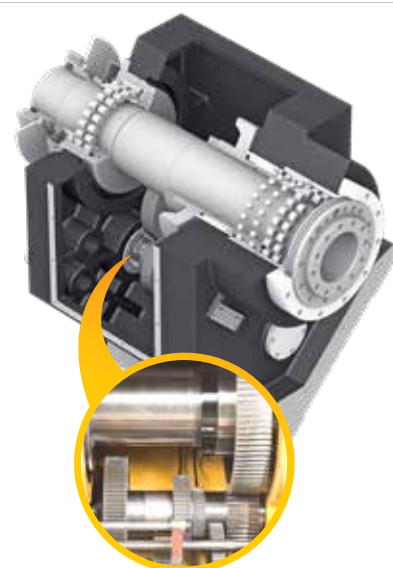
Gear shift of spindle provide stability and high torque during low speed.

L600/700 Series

3 Step Gear

L800 Series

2 Step Gear



C-Axis Control ('M' Type)

The C-axis is capable of 0.001° control when milling turret is applied. Machining capability is strengthened with turning and milling operations.

※ Prior consultation is required when applying spindle contouring control for gear driven spindle.

BIG BORE SPINDLE (L800/D Series)

Max. Spindle Bore L800LMA : **Ø320 (Ø12.6")**, L800D : **Ø375 (Ø14.8")** show excellent performance in machining large cylindrical parts for oil and gas industry.

Air Chucking System **OPTION**

A dual chuck design - one on each end of the spindle - offers superior support of the workpiece such as long shafts or pipe.



03 SERVO TURRET

High speed, High Accuracy, Highly Reliable Servo Turret

Servo Turret

No. of Tools

12_{EA}

Tool Size (O.D./I.D.)

□32/Ø80 mm (Ø1 1/4" / Ø3")

Indexing Time

0.4_{sec}

Mill Turret

ITEM	Speed	Motor (Max./Cont)	Torque (Max./Cont)	Collet Size
BMT85	3,000 rpm	11/7.5 kW (15/10HP)	140/95.4 N·m (103.3/70.4 lbf·ft)	ER50 / Ø34 (1.3")

VARIOUS DRIVEN PRECISION BMT TOOL HOLDERS

SERVO TURRET



Standard Turret

The L600/700/800 Series apply an AC Servo Motor to enhance machining reliability. Also, split accuracy is improved by using 3-piece couplings. Powerful hydraulic tool clamping system minimizes tool tip displacement caused by workload.

70 bar High Pressure Coolant **OPTION**

Turret is designed to utilize **70 bar** high pressure coolant and it shows optimum performance in machining difficult-to-cut material.

BMT85 Turret

The BMT turret secures the tool with four bolts and key on the tool mounting surface of the turret, making it possible to powerfully fix the tool, ensuring high reliability in rigidity and precision.

STRAIGHT MILLING HEAD

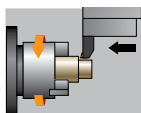


ANGULAR MILLING HEAD



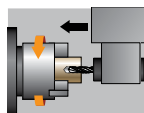
Mill Tool Holder

Machining capability has increased with the addition of straight milling head tool holder.



Heavy-duty cutting (O.D) (Material : S45C)

Spindle rpm	96 r/min
Cutting speed	150 m/min
Cutting depth	12 mm
Forwarding	0.65 mm/rev
Chip discharge	1,170 cc/min



U-Drilling (Material : S45C)

Tool diameter	Ø180
Cutting speed	130 m/min
Cutting depth	50 mm
Forwarding	0.14 mm/rev
Chip discharge	814 cc/min

※ The above result might be different by types of processing circumstance.

04 USER CONVENIENCE

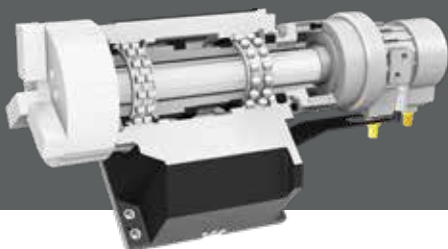
Various Devices for User Friendly

TAIL STOCK

Built-In Tail Stock

The built-in tail stock ensures high accuracy even during heavy duty cutting and can be controlled automatically or manually.

Taper	Quill Dia.	Quill Travel
MT#6	Ø160 mm (6.3")	132.5 mm (5.2")



Chuck Type Tail Stock **OPTION**

When machining material like pipe stable product-machining is possible with the use of chuck type tail stock.

Chuck Size : 12"	Sp. Speed : 3,000 rpm	Quill Dia. : Ø95 mm (Ø3.7")
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MACHINING SUPPORT SYSTEM



Automatic Q-Setter

Cutting tools are calibrated quickly and accurately with the addition of a q-setter. Each tool tip is touched off manually using a sensor that inputs the position automatically.



Steady Rest **OPTION**

For long parts, such as shafts, the steady rest increases rigidity and minimizes vibration.
(Manual/Programmable hydraulic steady rest)

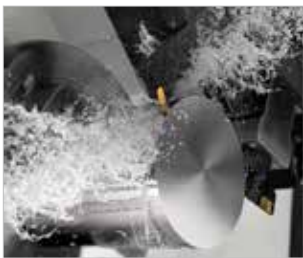


Rear Chuck **OPTION**

The rear chuck option enables long products such as long shaft or pipes to be processed in a stable condition.

※ (L800/D Series : Manual Q-Setter)

COOLANT UNIT



Standard Coolant (Nozzle)



Chuck Coolant (Upper Chuck)



Chuck Air Blow (Upper Chuck)



Gun Coolant

CHIP DISPOSAL SOLUTION

Chip Conveyor

Timely and effective disposal of chips will enhance productivity as well as the working environment.



Hinge	Chip Type : Roughing Chip, Long Chip, Chip complex	Material : SS41, 45C, Cast Steel	Front-Right Direction
	Highly efficient when disposing a lot of chips. Capable of handling stringy chips..		
Scraper	Chip Type : Finely broken chip blown out	Material : cast Iron, Nonferrous	
	Convenient for shortly cut chips.		
※ Drum Filter	Chip Type : Powder, Micro Chip	Material : AL	
	Advantageous in precision, as the chips do not flow in to the coolant nozzle.		

※ When ordering a drum filter chip conveyor, prior consult with hyudai wia’s sales person.

05 FANUC - SMART PLUS



15" Touch-type Monitor as a standard

Smart Machine Control

Conversational Program

i-HMI

Part Program Storage

No. of Registerable Programs

Fast Cycle Time Technology

Fine Surface Technology

Smart Servo Control Technology

SmartGuide-i

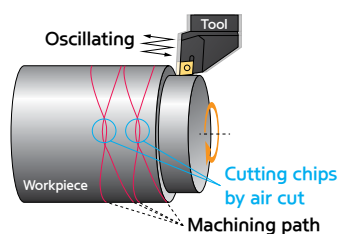
Machining-aid Function

5120M (2MB)

1000 EA

Servo Learning Oscillation Function for Chip Breaking **OPTION**

- **Machining Method** : The tool cuts the workpiece moving in a zigzag pattern. (Oscillating) → Air cut section occurs → Long chips break
- **Advantage** : Increase tool life, Enhance surface finishing, Improve chip disposal
- **Machine** : All turning centers with FANUC controller (Option)



(Developed special screen page for servo learning oscillation function / Even when this function is applied, the cycle time remains same.)

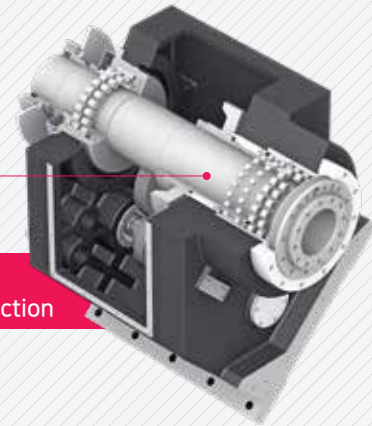
8Ch. Thermal displacement compensation **OPTION**



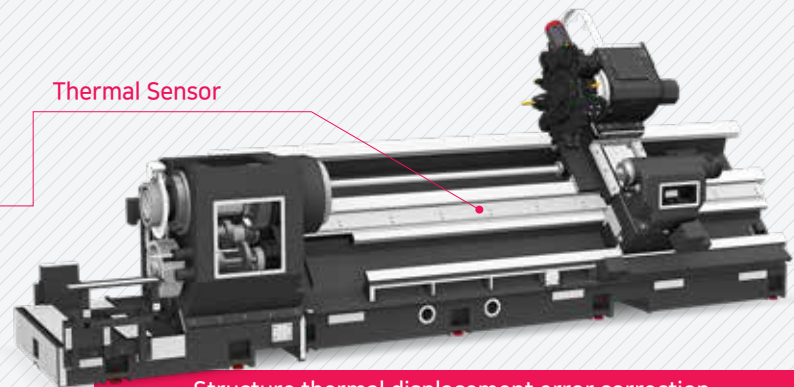
Control Software

Thermal Sensor

Spindle thermal displacement error correction



Thermal Sensor



Structure thermal displacement error correction

Machine tools generate thermal displacement due to heat during machining.

WIA machine tools detect thermal changes through thermal sensors installed on the main thermal sources of the machine.

In addition, a thermal displacement compensation device that predicts the amount of thermal displacement according to the amount of thermal change and provides a command to the motor with a compensated value to maintain consistent precision is provided as an option.

SMART CNC (FANUC Smart Plus)



1. Dialogue Program (Smart Guide-i)

This software offers the maximum user convenience through dialogue manipulation from setup to processing. This includes writing processing programs and simulation checks.

2. LAUNCHER

This software offers shortcuts for quick access to specialized features and frequently used features.

SPECIFICATIONS

Standard & Optional (L600 Series)

Spindle		L600A(LA)	L600MA(LMA)
No Chuck		●	●
Main Spindle Hollow Chuck 3 Jaw	18"	○	○
	21"	○	○
	24"	○	○
Main Spindle Solid Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	-	-
Standard Soft Jaw (1set)		○	○
Chuck Clamp Foot Switch		●	●
2 Steps Hyd, Pressure Device		○	○
Spindle Inside Stopper		☆	☆
5" Index		☆	☆
Cs-Axis (0.001")		-	●
Chuck Open/Close Confirmation Device		●	●
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
	Adaptor Type	-	●
Angular Milling Head	Adaptor Type	-	●
Boring Sleeve		●	●
Drill Socket		○	○
U-Drill Cap		●	●
Long Boring Bar I.D Holder		LA ☆	LMA ☆
Angle Head		-	☆
Tail Stock & Steady Rest			
Built-in Tail Stock		●	●
Programmable Tail Stock		●	●
Manual Type Steady Rest		☆	☆
Manual Type Hyd. Steady Rest	1Set	-	-
	2Sets	-	-
Programmable Hyd. Steady Rest	1Set	○	○
	2Sets	LA ○	LMA ○
Fixed center		●	●
2 Steps Tail Stock Pressure System		☆	☆
Quill Forward/Reverse Confirmation Device		○(CE:●)	○(CE:●)
Tail Stock Foot Switch (Standard when selecting the tailstock / Excluding the motor tailstock)		●	●
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Bed Flushing Coolant		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Spindle Thru Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	-
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		☆	☆
Turret Air Blow		☆	☆
Air Gun		○	○
Spindle Thru Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	6Bar	●	●
	20Bar	○	○
	70Bar	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	570 ℓ (150.6 gal)	●	●
	770 ℓ (203.4 gal)	LA ●	LMA ●
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Front (Rear)	-	-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

Safety Device		L600A(LA)	L600MA(LMA)
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○(CE:●)	○(CE:●)
Electric Device			
Call Light	1Color : ●	●	●
Call Light & Buzzer	3Color : ●●●	○	○
Electric Cabinet Light		○	○
Remote MPG		○	○
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	70kVA	○	○
Auto Power Off		○	○
Measurement			
Q-Setter		-	-
Automatic Q-Setter		●	●
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		○	○
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	☆	☆
Auto Shutter (Only for Automatic System)		-	-
Sub Operation Pannel		☆	☆
Bar Feeder Interface		○	○
Bar Feeder (FEDEK)		☆	☆
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	-	-
Turret Work Pusher (For Automation)		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	●	●
Standard Hyd. Unit	58bar/63 ℓ (16.6 gal)	●	●
S/W			
Dialogue Program (HW-DPRO)		○	○
DNC software (HW-eDNC)		○	○
Smart Guide-i : FANUC		● (F32i-B : ☆)	● (F32i-B : ☆)
Smart S/W		☆	☆
ETC			
Tool Box		●	●
Customized Color	Need Munsell No.	☆	☆
CAD & CAM		☆	☆

※ 4 channel of TDC(Thermal Displacement Compensation) device is recommended, when more than 6 bar of high pressure coolant is applied, for the high quality machining.
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Standard & Optional (L700 Series)

Spindle		L700A(LA)	L700MA(LMA)
No Chuck		●	●
Main Spindle Hollow Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	○	○
	32"	○	○
Main Spindle Solid Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	-	-
	32"	-	-
Standard Soft Jaw (1set)		○	○
Chuck Clamp Foot Switch		●	●
2 Steps Hyd, Pressure Device		○	○
Spindle Inside Stopper		☆	☆
5" Index		☆	☆
Cs-Axis (0.001")		-	●
Chuck Open/Close Confirmation Device		●	●
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
Straight Milling Head	Adaptor Type	-	●
Angular Milling Head	Adaptor Type	-	●
Boring Sleeve		●	●
Drill Socket		○	○
U-Drill Cap		●	●
Long Boring Bar I.D Holder		LA ☆	LMA ☆
Angle Head		-	☆
Tail Stock & Steady Rest			
Built-In Tail Stock		●	●
Programmable Tail Stock		●	●
Manual Type Steady Rest		☆	☆
Manual Type Hyd. Steady Rest	1Set	-	-
	2Sets	-	-
Programmable Hyd. Steady Rest	1Set	○	○
	2Sets	LA ○	LMA ○
Fixed center		●	●
2 Steps Tail Stock Pressure System		☆	☆
Quill Forward/Reverse Confirmation Device		○(CE:●)	○(CE:●)
Tail Stock Foot Switch (Standard when selecting the tailstock / Excluding the motor tailstock)		●	●
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Bed Flushing Coolant		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Spindle Thru Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	-
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		☆	☆
Turret Air Blow		☆	☆
Air Gun		○	○
Spindle Thru Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	6Bar	●	●
	20Bar	○	○
	70Bar	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	570 ℓ (150.6 gal)	●	●
	770 ℓ (203.4 gal)	LA ●	LMA ●
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Front (Rear)	-	-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

Safety Device		L700A(LA)	L700MA(LMA)
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○(CE:●)	○(CE:●)
Electric Device			
Call Light	1Color : ■	●	●
Call Light & Buzzer	3Color : ■ ■ ■ B	○	○
Electric Cabinet Light		○	○
Remote MPG		○	○
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	70kVA	○	○
Auto Power Off		○	○
Measurement			
Q-Setter		-	-
Automatic Q-Setter		●	●
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		○	○
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	☆	☆
Auto Shutter (Only for Automatic System)		-	-
Sub Operation Pannel		☆	☆
Bar Feeder Interface		○	○
Bar Feeder (FEDEK)		☆	☆
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	-	-
Turret Work Pusher (For Automation)		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	●	●
Standard Hyd. Unit	58bar/63 ℓ (16.6 gal)	●	●
S/W			
Dialogue Program (HW-DPRO)		○	○
DNC software (HW-eDNC)		○	○
Smart Guide-i : FANUC		● (F32i-B : ☆)	● (F32i-B : ☆)
Smart S/W		☆	☆
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

※ 4 channel of TDC(Thermal Displacement Compensation) device is recommended, when more than 6 bar of high pressure coolant is applied, for the high quality machining.
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Standard & Optional (L800 Series)

Spindle		L800A(LA)	L800MA(LMA)
No Chuck		●	●
Main Spindle Hollow Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	-	-
	32"	○	○
Main Spindle Solid Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	-	-
	32"	-	-
Big Bore Air Chuck		○	○
Standard Soft Jaw (1set)		○	○
Chuck Clamp Foot Switch		●	●
2 Steps Hyd. Pressure Device		○	○
Spindle Inside Stopper		☆	☆
5" Index		☆	☆
Cs-Axis (0.001")		-	●
Chuck Open/Close Confirmation Device		●	●
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
	Straight Milling Head	-	●
	Angular Milling Head	-	●
Boring Sleeve		●	●
Drill Socket		○	○
U-Drill Cap		●	●
Long Boring Bar I.D Holder		LA ☆	LMA ☆
Angle Head		-	☆
Tail Stock & Steady Rest			
Built-in Tail Stock		●	●
Programmable Tail Stock		●	●
Manual Type Steady Rest		☆	☆
Manual Type Hyd. Steady Rest	1Set	-	-
	2Sets	-	-
Programmable Hyd. Steady Rest	1Set	○	○
	2Sets	LA ○	LMA ○
Fixed center		●	●
2 Steps Tail Stock Pressure System		☆	☆
Quill Forward/Reverse Confirmation Device		○(CE:●)	○(CE:●)
Tail Stock Foot Switch (Standard when selecting the tailstock / Excluding the motor tailstock)		●	●
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Bed Flushing Coolant		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Spindle Thru Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	-
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		☆	☆
Turret Air Blow		☆	☆
Air Gun		○	○
Spindle Thru Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	6Bar	●	●
	20Bar	○	○
	70Bar	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	570 ℓ (150.6 gal)	●	●
	770 ℓ (203.4 gal)	LA ●	LMA ●
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Front (Rear)	-	-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
Chip Wagon	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

Safety Device		L800A(LA)	L800MA(LMA)
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○(CE:●)	○(CE:●)
Electric Device			
Call Light	1Color : ●	●	●
Call Light & Buzzer	3Color : ●●●	○	○
Electric Cabinet Light		○	○
Remote MPG		○	○
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	70kVA	○	○
Auto Power Off		○	○
Measurement			
Q-Setter		○	○
Automatic Q-Setter		-	-
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		○	○
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	☆	☆
Auto Shutter (Only for Automatic System)		-	-
Sub Operation Pannel		☆	☆
Bar Feeder Interface		○	○
Bar Feeder (FEDEK)		☆	☆
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	-	-
Turret Work Pusher (For Automation)		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	○	○
Standard Hyd. Unit	58bar/63 ℓ (16.6 gal)	●	●
S/W			
Dialogue Program (HW-DPRO)		○	○
DNC software (HW-eDNC)		○	○
Smart Guide-i : FANUC		● (F32i-B : ☆)	● (F32i-B : ☆)
Smart S/W		☆	☆
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

※ 4 channel of TDC(Thermal Displacement Compensation) device is recommended, when more than 6 bar of high pressure coolant is applied, for the high quality machining.
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Standard & Optional (L800 Series)

● : Standard ○ : Option ☆ : Prior Consultation - : Non Applicable

Spindle		L800D(LD)	L800MD(LMD)
No Chuck		●	●
Main Spindle Hollow Chuck 3 Jaw	18"	-	-
	21"	-	-
	24"	-	-
Main Spindle Solid Chuck 3 Jaw	32"	-	-
	18"	-	-
	21"	-	-
Big Bore Air Chuck	24"	-	-
	32"	-	-
	34"	○	○
Big Bore Independent Chuck	32"	○	○
Standard Soft Jaw (1set)		○	○
Chuck Clamp Foot Switch		●	●
2 Steps Hyd, Pressure Device		○	○
Spindle Inside Stopper		☆	☆
Main Spindle 5" Index		☆	☆
C-Axis (0.001")		-	●
Chuck Open/Close Confirmation Device		●	●
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
Straight Milling Head	Collet Type	-	●
Angular Milling Head	Collet Type	-	●
Boring Sleeve		●	●
Drill Socket		○	○
U-Drill Cap		●	●
Long Boring Bar LD Holder		LD ☆	LMD ☆
Angle Head		-	☆
Tail Stock & Steady Rest			
Built-In Tail Stock		○	○
Programmable Tail Stock		○	○
Manual Type Steady Rest		☆	☆
Programmable Hyd. Steady Rest	1Set	○	○
	2Sets	LD ○	LMD ○
Fixed center		Selecting Tail Stock (●)	Selecting Tail Stock (●)
2 Steps Tail Stock Pressure System		Selecting Tail Stock (☆)	Selecting Tail Stock (☆)
Quill Forward/Reverse Confirmation Device		Selecting Tail Stock (●)	Selecting Tail Stock (●)
Tail Stock Foot Switch		Selecting Tail Stock (●)	Selecting Tail Stock (●)
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Bed Flushing Coolant		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Spindle Thru Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	-
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		☆	☆
Turret Air Blow		☆	☆
Air Gun		○	○
Spindle Thru Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	6Bar	●	●
	20Bar	○	○
	70Bar	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller		☆	☆
Chip Disposal			
Coolant Tank	570 ℓ (150.6 gal)	●	●
	770 ℓ (203.4 gal)	LD ●	LMD ●
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Front (Rear)	-	-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
Chip Wagon	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

Safety Device		L800D(LD)	L800MD(LMD)
Total Splash Guard		●	●
Chuck hydraulic pressure maintenance interlock		○(CE●)	○(CE●)
Electric Device			
Call Light	1Color : ■	●	●
Call Light & Buzzer	3Color : ■■ ■■ B	○	○
Electric Cabinet Light		○	○
Remote MPG		○	○
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	70kVA	○	○
Auto Power Off		○	○
Measurement			
Q-Setter		○	○
Automatic Q-Setter		-	-
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Work Setter		○	○
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door	Standard	○	○
	High Speed	☆	☆
Auto Shutter (Only for Automatic System)		-	-
Sub Operation Pannel		☆	☆
Bar Feeder Interface		-	-
Bar Feeder (FEDEK)		-	-
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	-	-
Turret Work Pusher (For Automation)		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	-	-
Standard Hyd. Unit	58bar/63 ℓ (16.6 gal)	●	●
S/W			
Dialogue Program (HW-DPRO)		○	○
DNC software (HW-eDNC)		○	○
Smart Guide-i : FANUC		● (F32i-B : ☆)	● (F32i-B : ☆)
Smart S/W		☆	☆
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

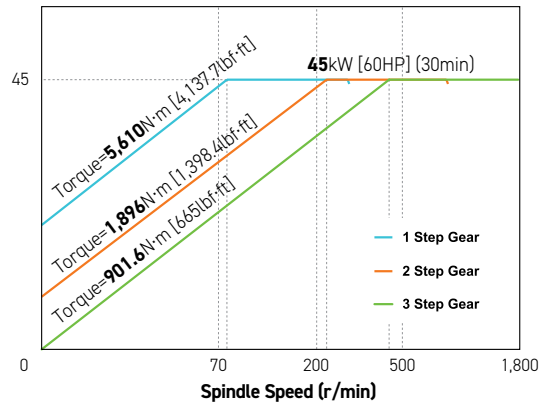
※ 4 channel of TDC(Thermal Displacement Compensation) device is recommended, when more than 6 bar of high pressure coolant is applied, for the high quality machining.
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Spindle Output/Torque Diagram

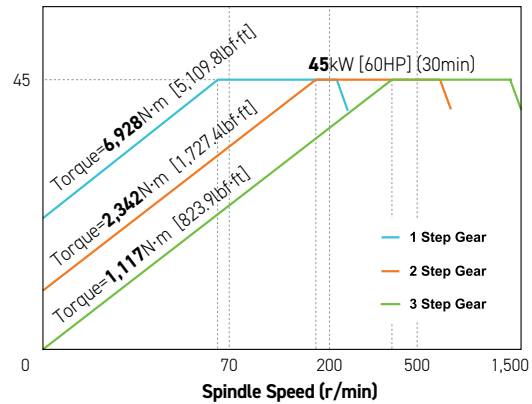
L600 Series 1,800 rpm

Power(kW [HP])



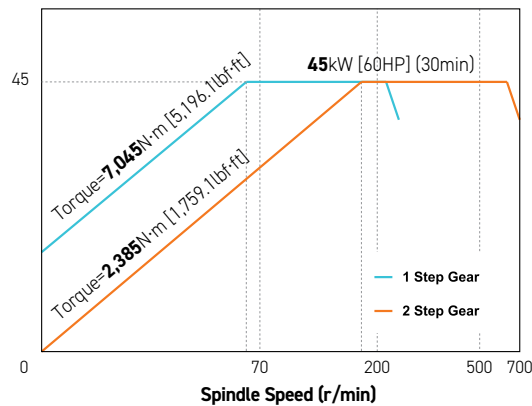
L700 Series 1,500 rpm

Power(kW [HP])



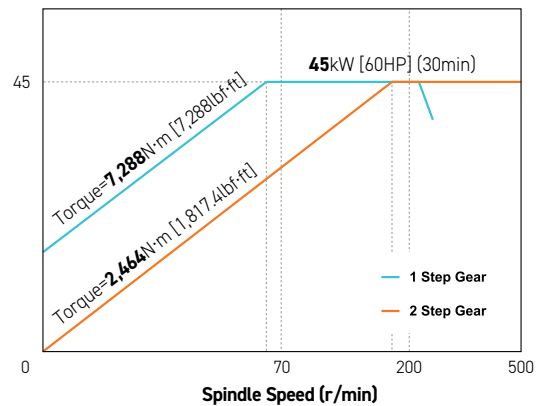
L800 Series 700 rpm

Power(kW [HP])



L800D Series 500 rpm

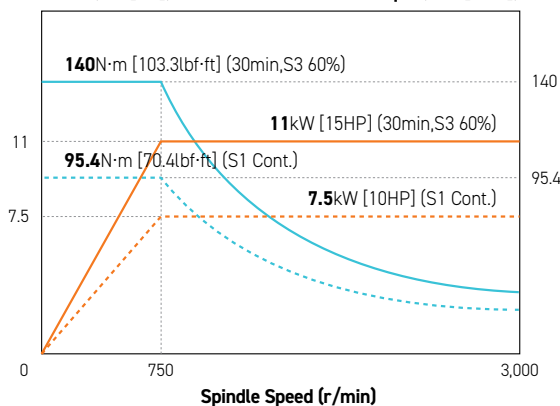
Power(kW [HP])



Mill Turret 3,000 rpm

Power(kW [HP])

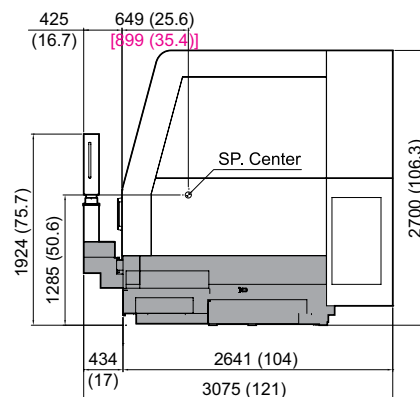
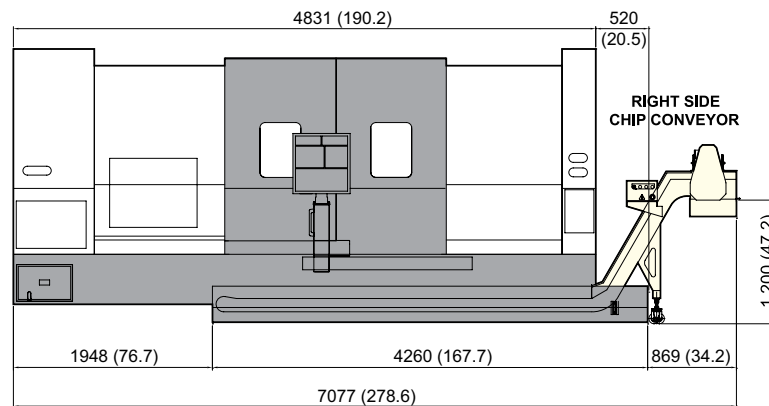
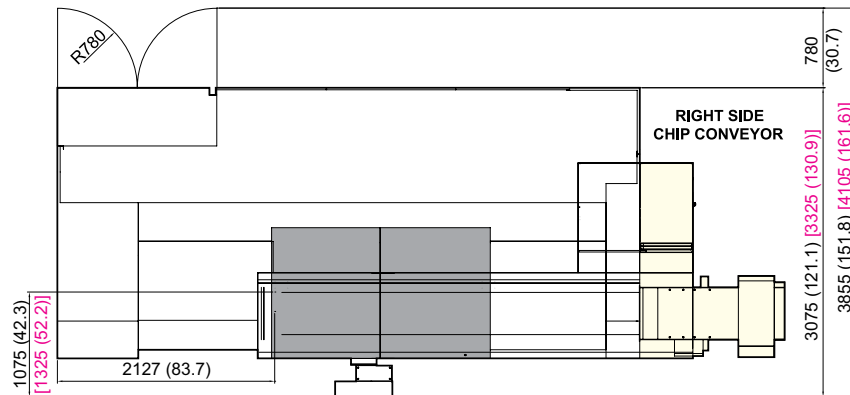
Torque (N·m [lbf·ft])



SPECIFICATIONS

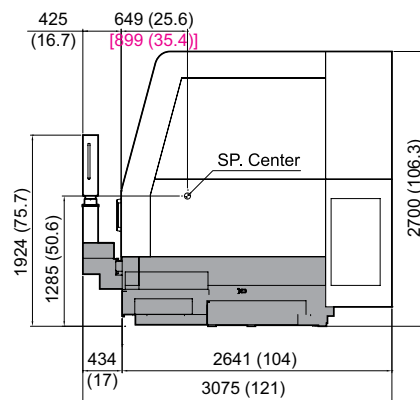
External Dimensions (Standard Type)

unit : mm(in)



[When applying K6.1 steady rest device]

unit : mm(in)

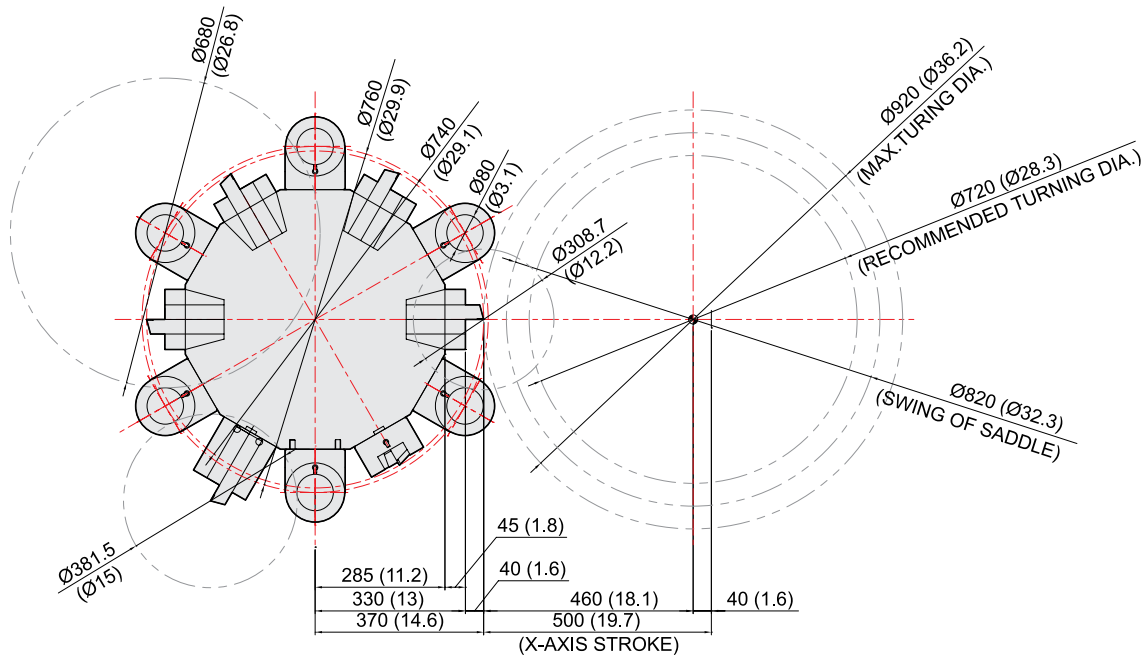


[When applying K6.1 steady rest device]

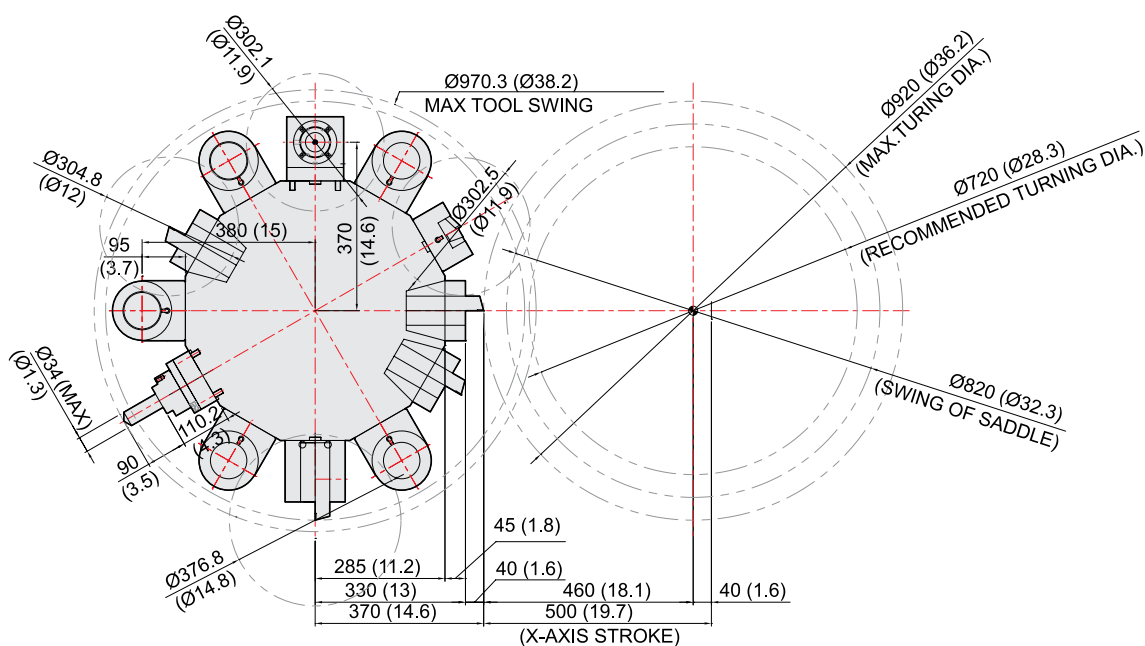
SPECIFICATIONS

Interference

Standard Turret



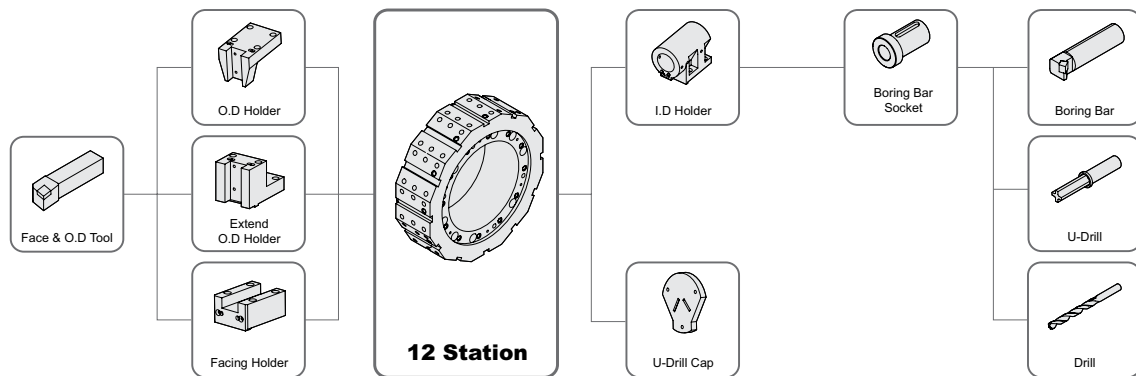
Mill Turret



SPECIFICATIONS

Tooling System (Standard Turret)

unit : mm(in)



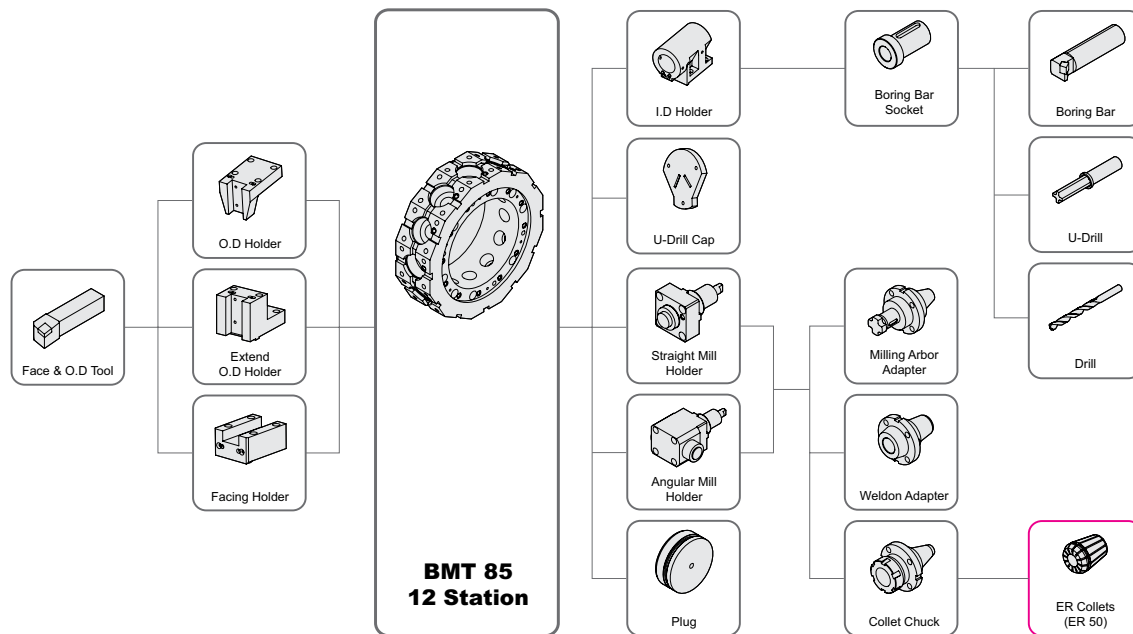
Tooling Parts Detail

ITEM			A/D		LA/LD	
			mm Unit	inch Unit	mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	4	4	4	4
		Extended	1	1	1	1
	Facing Holder		1	1	1	1
Boring Holder	I.D Holder	Single	6	6	6	6
		Long (SET)	-	-	Opt	-
Driven Holder	Straight Mill Holder	Standard	-	-	-	-
	Angular Mill Holder	Standard	-	-	-	-
Socket	Boring	Ø20 (Ø3/4")	1	1	1	1
		Ø25 (Ø1")	1	1	1	1
		Ø32 (Ø1 1/4")	1	1	1	1
		Ø40 (Ø1 1/2")	1	1	1	1
		Ø50 (Ø2")	1	1	1	1
		Ø60 (Ø2 1/4")	1	1	1	1
	Drill	MT 3	Opt	Opt	Opt	Opt
		MT 4	Opt	Opt	Opt	Opt
		MT 5	Opt	Opt	Opt	Opt
	Adapter Set		-	-	-	-

SPECIFICATIONS

Tooling System (Mill Turret)

unit : mm(in)



Tooling Parts Detail

ITEM			MA/MD		LMA/LMD	
			mm Unit	inch Unit	mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	3	3	3	3
		Extended	1	1	1	1
	Facing Holder		1	1	1	1
Boring Holder	I.D Holder	Single	5	5	5	5
		Long (SET)	-	-	Opt	-
Driven Holder	Straight Mill Holder	Standard	1	1	1	1
	Angular Mill Holder	Standard	1	1	1	1
Socket	Boring	Ø20 (Ø3/4")	1	1	1	1
		Ø25 (Ø1")	1	1	1	1
		Ø32 (Ø1 1/4")	1	1	1	1
		Ø40 (Ø1 1/2")	1	1	1	1
		Ø50 (Ø2")	1	1	1	1
		Ø60 (Ø2 1/4")	1	1	1	1
	Drill	MT 3	Opt	Opt	Opt	Opt
		MT 4	Opt	Opt	Opt	Opt
		MT 5	Opt	Opt	Opt	Opt
	Adapter Set		1 Set	1 Set	1 Set	1 Set

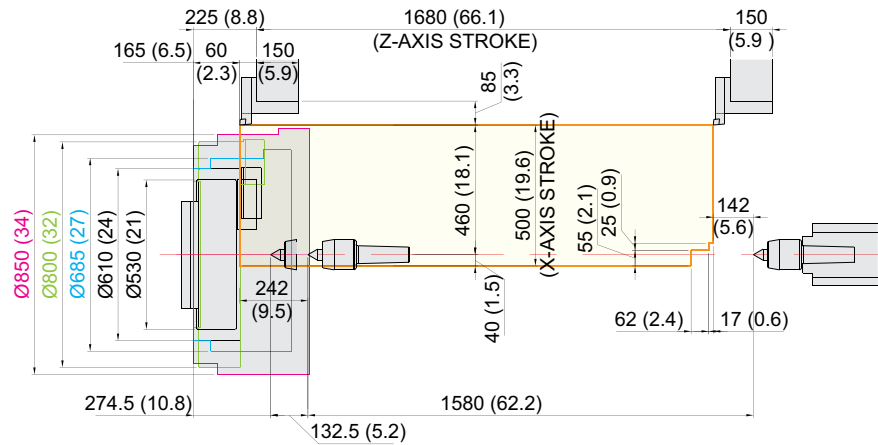
Specifications are subject to change without notice for improvement. (Driven Holder - EWS : Standard, Eppinger : Option)

SPECIFICATIONS

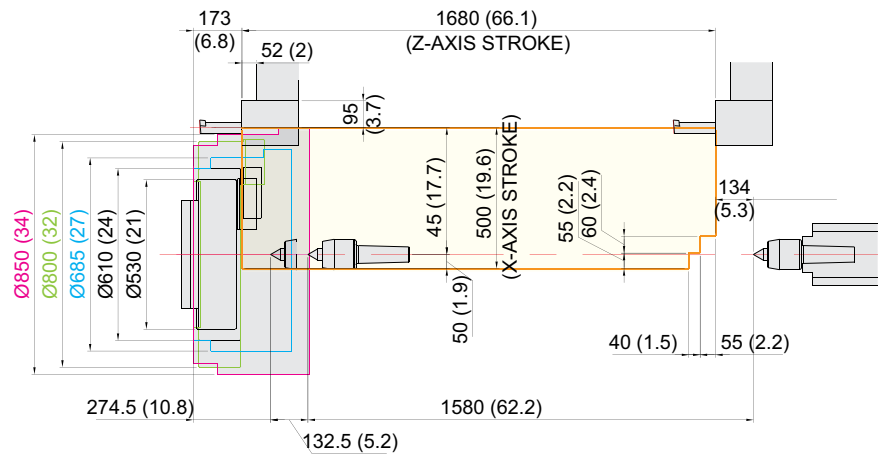
Interference (L600A/600MA/700A/700MA/800A/800MA/800D/800MD)

unit : mm(in)

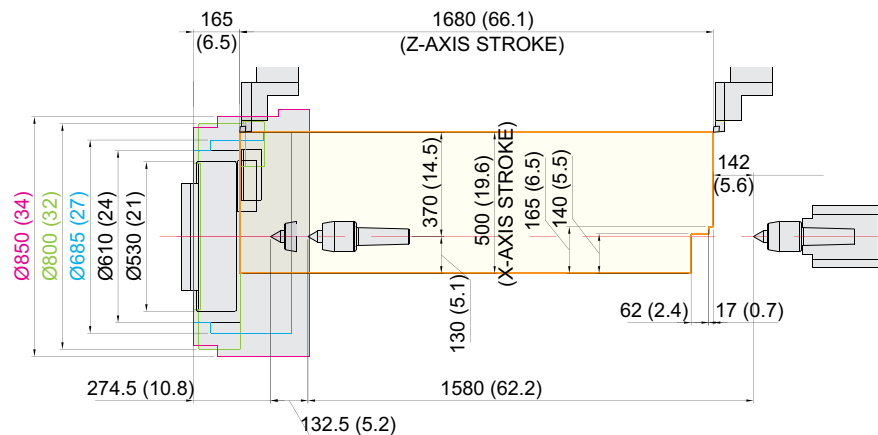
OD TOOL HOLDER



ID TOOL HOLDER



EXTEND OD TOOL HOLDER



L600/700/800 Series
CNC Turning Center

unit : mm(in)

Technical drawing of the 3D printer's internal structure showing dimensions for the X and Z axes. The drawing includes a yellow rectangular area representing the main chamber and a green rectangular area representing the front panel. Dimensions are given in millimeters (mm) and inches (in).

Dimensions (mm / in):

- Front Panel (Green Area):**
 - Overall Width: 300 (11.8)
 - Inner Width: 225 (8.8)
 - Overall Height: Ø850 (34)
 - Inner Height: Ø685 (27)
 - Height to Top Mount: Ø610 (24)
 - Height to Bottom Mount: Ø530 (21)
- Main Chamber (Yellow Area):**
 - Overall Width: 1680 (66.1)
 - Overall Height: 500 (19.6)
 - Height to Top Mount: 434.8 (17.1)
 - Height to Bottom Mount: 65.2 (2.5)
 - Internal Width (Right Side): 65 (2.6)
 - Internal Width (Left Side): 35 (1.4)
- Top Mount (Grey Area):**
 - Overall Width: 150 (5.9)
 - Inner Width: 150 (5.9)
 - Height: 1680 (66.1)
 - Label: (Z-AXIS STROKE)
- Bottom Mount (Grey Area):**
 - Overall Width: 150 (5.9)
 - Inner Width: 150 (5.9)
 - Height: 1680 (66.1)
 - Label: (X-AXIS STROKE)
- Right Side Mount (Grey Area):**
 - Overall Width: 150 (5.9)
 - Inner Width: 150 (5.9)
 - Height: 1680 (66.1)
 - Label: (Z-AXIS STROKE)
- Other Dimensions:**
 - MAX 90 (3.5)
 - MAX Ø34 (1.3)
 - 7 (0.3)
 - 58 (2.3)
 - 37 (1.5)

Technical drawing of the 3D printer's main body showing dimensions for X and Z axis strokes and various diameters.

Dimensions:

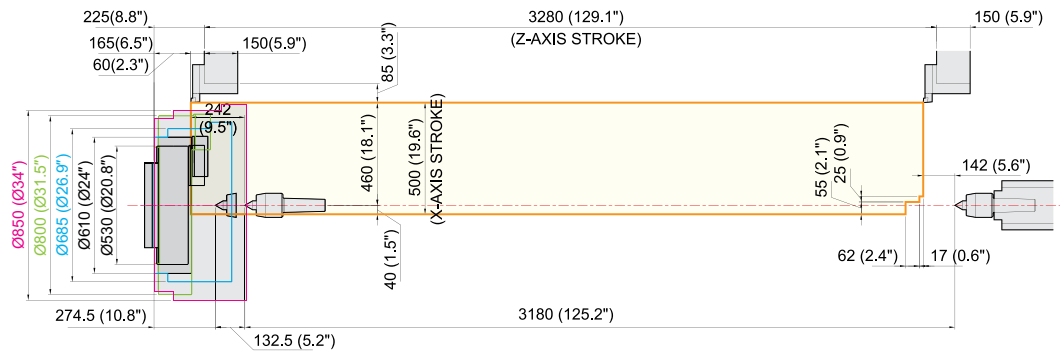
- X-Axis Stroke:** 500 (19.7)
- Z-Axis Stroke:** 1680 (66.1)
- Other Dimensions:**
 - 300 (11.8)
 - 156.9 (6.3)
 - 158.1 (6.2)
 - 150.1 (5.9)
 - 45 (1.8)
 - 90 (3.5)
 - 40 (1.5)
 - 50 (2)
 - 460 (18.2)
 - Ø850 (34)
 - Ø800 (32)
 - Ø685 (27)
 - Ø610 (24)
 - Ø530 (21)
 - Ø34 (1.3) MAX

SPECIFICATIONS

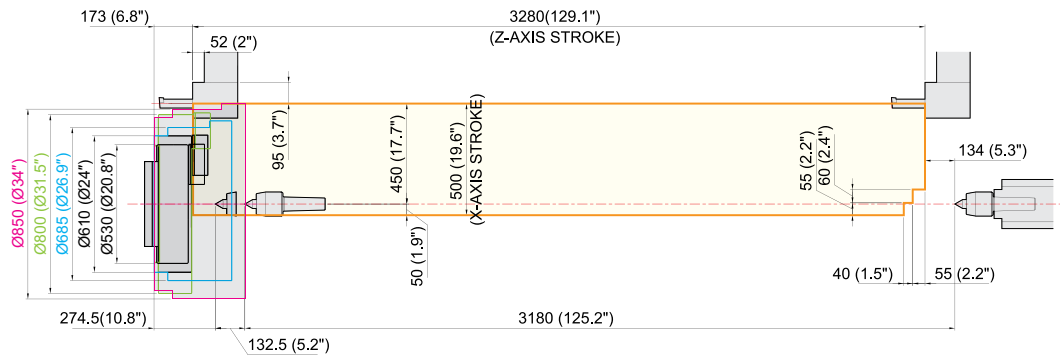
Interference (L600LA/600LMA/700LA/700LMA/800LA/800LMA/800LD/800LMD)

unit : mm(in)

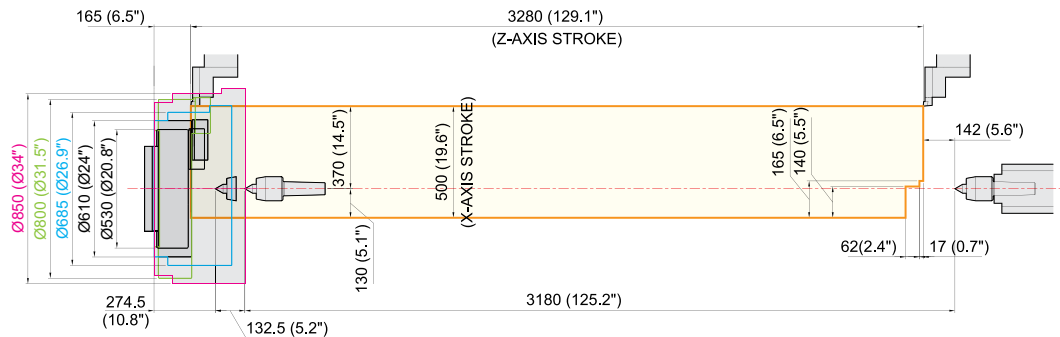
OD TOOL HOLDER



ID TOOL HOLDER



EXTEND OD TOOL HOLDER

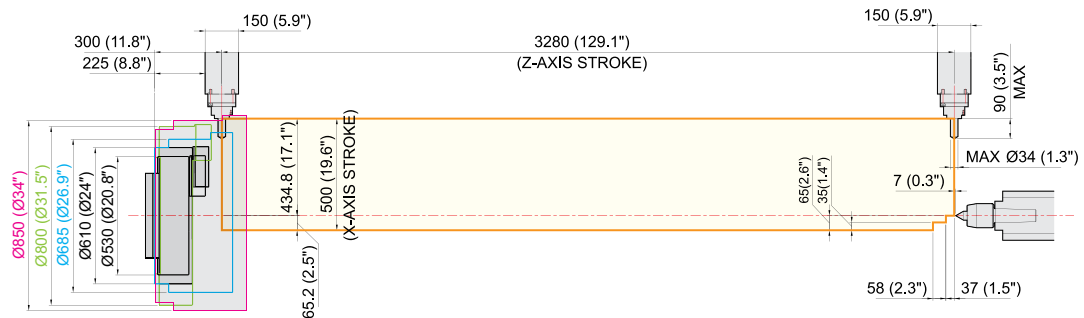


SPECIFICATIONS

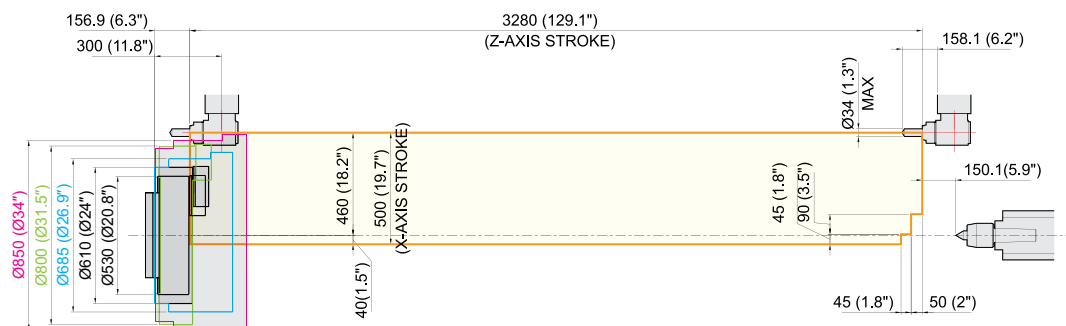
Tooling Travel Range (L600LMA/700LMA/800LMA/800LMD)

unit : mm(in)

STRAIGHT MILLING HEAD



ANGULAR MILLING HEAD



SPECIFICATIONS

Specifications

[] : Option

ITEM			L600A	L600MA	L600LA	L600LMA
CAPACITY	Swing Over the Bed	mm(in)	Ø1,050 (41.3")			
	Swing Over the Carriage	mm(in)	Ø820 (32.3")			
	Max. Turning Dia.	mm(in)	Ø920 (36.2")			
	Max. Turning Length	mm(in)	1,650 (65")		3,250 (128")	
	Bar Capacity	mm(in)	[18" : Ø117 (Ø4.6") / 21", 24" : Ø139 (Ø5.5")]			
SPINDLE	Chuck Size	inch	Opt. [18" / 21" / 24"]			
	Spindle Bore	mm(in)	Ø152 (6")			
	Spindle Speed (rpm)	r/min	Opt. [18" : 1,800 / 21" : 1,700 / 24" : 1,400]			
	Motor (30min./Cont.)	kW(HP)	45/37 (60/50)			
	Torque (30min./Cont.)	N·m(lbf·ft)	5,610/4,621 (4,137.7/3,408.3)			
	Spindle Type	-	BELT + 3 STEP GEAR			
	Spindle Nose	-	A2-15			
	C-axis Indexing	deg	-	0.001°	-	0.001°
FEED	Travel (X/Z)	mm(in)	500/1,680 (19.7"/66.1")		500/3,280 (19.7"/129.1")	
	Rapid Traverse Rate (X/Z)	m/min	12/16		12/12	
	Slide Type	-	BOX GUIDE			
TURRET	No. of Tools	EA	12			
	Tool Size	OD	mm(in)	□32 (1.3")		
		ID	mm(in)	Ø80 (3.1")		
	Indexing Time	sec/step	0.4			
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-	11/7.5 (14.8/10)	-	11/7.5 (14.8/10)
	Milling Tool Speed (rpm)	r/min	-	3,000	-	3,000
	Torque (Max/Cont.)	N·m(lbf·ft)	-	140/95.4 (103.3/70.4)	-	140/95.4 (103.3/70.4)
	Collet Size	mm(in)	-	Ø34 (1.3") - ER50	-	Ø34 (1.3") - ER50
	Type	-	-	BMT85	-	BMT85
TAIL STOCK	Taper	-	MT6 (Built-in)			
	Quill Dia.	mm(in)	Ø160 (6.3")			
	Quill Travel	mm(in)	132.5 (5.2")			
	Travel	mm(in)	1,580 (62.2")		3,180 (125.2")	
TANK CAPACITY	Coolant Tank	ℓ (gal)	570 (150.6)		770 (203.4)	
	Lubricating Tank	ℓ (gal)	4 (1.1)			
POWER SUPPLY	Electric Power Supply	kVA	50			
	Thickness of Power Cable	Sq	Over 50			
	Voltage	V/Hz	220/60 (200/50*)			
MACHINE	Floor Space (L×W)	mm(in)	7,077×3,075 (278.6"×121.1")		8,715×3,075 (343.1"×121.1")	
	Height	mm(in)	2,700 (106.3")			
	Weight	kg(lb)	18,000 (3,968)		23,500 (51,809)	
NC	Controller	-	FANUC 32i-B [FANUC i Series - Smart Plus]			

※ Prior consultation is required when applying spindle contouring control for gear driven spindle.

*) Using 50Hz voltage instead of 60Hz may lower the output of motors. (excluding servo motors and inverter motors)

Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Specifications

[] : Option

ITEM			L700A	L700MA	L700LA	L700LMA
CAPACITY	Swing Over the Bed	mm(in)	Ø1,050 (41.3")			
	Swing Over the Carriage	mm(in)	Ø820 (32.3")			
	Max. Turning Dia.	mm(in)	Ø920 (36.2")			
	Max. Turning Length	mm(in)	1,650 (65")		3,250 (128")	
	Bar Capacity	mm(in)	Ø165 (6.5")			
SPINDLE	Chuck Size	inch	Opt. [24" / 32"]			
	Spindle Bore	mm(in)	Ø181 (7.1")			
	Spindle Speed (rpm)	r/min	Opt. [24" : 1,500 / 32" : 1,200]			
	Motor (30min./Cont.)	kW(HP)	45/37 (60/50)			
	Torque (30min/Cont.)	N·m(lbf·ft)	6,928/5,700 (5,109.8/4,204.1)			
	Spindle Type	-	BELT+3STEP GEAR			
	Spindle Nose	-	A1-15			
	C-axis Indexing	deg	-	0.001°	-	0.001°
	FEED	Travel (X/Z)	mm(in)	500/1,680 (19.7"/66.1")		500/3,280 (19.7"/129.1")
Rapid Traverse Rate (X/Z)		m/min	12/16		12/12	
Slide Type		-	BOX GUIDE			
TURRET	No. of Tools	EA	12			
	Tool Size	OD	mm(in)	□32 (1.3")		
		ID	mm(in)	Ø80 (3.1")		
	Indexing Time	sec/step	0.4			
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-	11/7.5 (14.8/10)	-	11/7.5 (14.8/10)
	Milling Tool Speed (rpm)	r/min	-	3,000	-	3,000
	Torque (Max/Cont.)	N·m(lbf·ft)	-	140/95.4 (103.3/70.4)	-	140/95.4 (103.3/70.4)
	Collet Size	mm(in)	-	Ø34 (1.3") - ER50	-	Ø34 (1.3") - ER50
	Type	-	-	BMT85	-	BMT85
TAIL STOCK	Taper	-	MT6 (Built-in)			
	Quill Dia.	mm(in)	Ø160 (6.3")			
	Quill Travel	mm(in)	132.5 (5.2")			
	Travel	mm(in)	1,580 (62.2")		3,180 (125.2")	
TANK CAPACITY	Coolant Tank	ℓ (gal)	570 (150.6)		770 (203.4)	
	Lubricating Tank	ℓ (gal)	4 (1.1)			
POWER SUPPLY	Electric Power Supply	kVA	51			
	Thickness of Power Cable	Sq	Over 50			
	Voltage	V/Hz	220/60 (200/50*)			
MACHINE	Floor Space (L×W)	mm(in)	7,077×3,075 (278.6"×121.1")		8,715×3,075 (343.1"×121.1")	
	Height	mm(in)	2,700 (106.3")			
	Weight	kg(lb)	18,000 (3,968)		23,500 (51,809)	
NC	Controller	-	FANUC 32i-B [FANUC i Series - Smart Plus]			

※ Prior consultation is required when applying spindle contouring control for gear driven spindle.

*) Using 50Hz voltage instead of 60Hz may lower the output of motors, (excluding servo motors and inverter motors)

Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Specifications

[] : Option

ITEM			L800A	L800MA	L800LA	L800LMA
CAPACITY	Swing Over the Bed	mm(in)	Ø1,050 (41.3")			
	Swing Over the Carriage	mm(in)	Ø820 (32.3")			
	Max. Turning Dia.	mm(in)	Ø920 (36.2")			
	Max. Turning Length	mm(in)	1,650 (65")		3,250 (128")	
	Bar Capacity	mm(in)	Hydraulic : Ø239 (9.4") / Air, Independent : Ø319 (12.6")			
SPINDLE	Chuck Size	inch	Opt. [24" : Independent / 27" : Air / 32" : Hydraulic]			
	Spindle Bore	mm(in)	Ø320 (12.6")			
	Spindle Speed (rpm)	r/min	700			
	Motor (30min./Cont.)	kW(HP)	45/37 (60/50)			
	Torque (30min/Cont.)	N·m(lbf·ft)	7,045/5,795 (5,196.1/4,274.2)			
	Spindle Type	-	BELT+2STEP GEAR			
	Spindle Nose	-	A1-20			
	C-axis Indexing	deg	-	0.001°	-	0.001°
	FEED	Travel (X/Z)	mm(in)	500/1,680 (19.7"/66.1")		500/3,280 (19.7"/129.1")
Rapid Traverse Rate (X/Z)		m/min	12/16		12/12	
Slide Type		-	BOX GUIDE			
TURRET	No. of Tools	EA	12			
	Tool Size	OD	mm(in)	□32 (1.3")		
		ID	mm(in)	Ø80 (3.1")		
	Indexing Time	sec/step	0.4			
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-	11/7.5 (14.8/10)	-	11/7.5 (14.8/10)
	Milling Tool Speed (rpm)	r/min	-	3,000	-	3,000
	Torque (Max/Cont.)	N·m(lbf·ft)	-	140/95.4 (103.3/70.4)	-	140/95.4 (103.3/70.4)
	Collet Size	mm(in)	-	Ø34 (1.3") - ER50	-	Ø34 (1.3") - ER50
	Type	-	-	BMT85	-	BMT85
TAIL STOCK	Taper	-	MT6 (Built-in)			
	Quill Dia.	mm(in)	Ø160 (6.3")			
	Quill Travel	mm(in)	132.5 (5.2")			
	Travel	mm(in)	1,580 (62.2")		3,180 (125.2")	
TANK CAPACITY	Coolant Tank	ℓ (gal)	570 (150.6)		770 (203.4)	
	Lubricating Tank	ℓ (gal)	4 (1.1)			
POWER SUPPLY	Electric Power Supply	kVA	54			
	Thickness of Power Cable	Sq	Over 50			
	Voltage	V/Hz	220/60 (200/50*)			
MACHINE	Floor Space (L×W)	mm(in)	7,077×3,075 (278.6"×121.1")		8,715×3,075 (343.1"×121.1")	
	Height	mm(in)	2,700 (106.3")			
	Weight	kg(lb)	18,000 (3,968)		23,500 (51,809)	
NC	Controller	-	FANUC 32i-B [FANUC i Series - Smart Plus]			

※ Prior consultation is required when applying spindle contouring control for gear driven spindle.

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SPECIFICATIONS

Specifications

[] : Option

ITEM			L800D	L800MD	L800LD	L800LMD	
CAPACITY	Swing Over the Bed		mm(in)	Ø1,050 (41.3")			
	Swing Over the Carriage		mm(in)	Ø820 (32.3")			
	Max. Turning Dia.		mm(in)	Ø920 (36.2")			
	Max. Turning Length		mm(in)	1,650 (65")		3,250 (128")	
	Bar Capacity		mm(in)	Ø374 (14.7")			
SPINDLE	Chuck Size		inch	Opt. [34" Air Chuck] [32" Independent Chucks]			
	Spindle Bore		mm(in)	Ø375 (14.8")			
	Spindle Speed (rpm)		r/min	500			
	Motor (30min./Cont.)		kW(HP)	45/37 (60/50)			
	Torque (30min/Cont.)		N·m(lbf·ft)	7,288/5,992 (5,375.4/4,419.5)			
	Spindle Type		-	BELT+2STEP GEAR			
	Spindle Nose		-	A2-20			
	C-axis Indexing		deg	-	0.001°	-	0.001°
FEED	Travel (X/Z)		mm(in)	500/1,680 (19.7"/66.1")		500/3,280 (19.7"/129.1")	
	Rapid Traverse Rate (X/Z)		m/min	12/16		12/12	
	Slide Type		-	BOX GUIDE			
TURRET	No. of Tools		EA	12			
	Tool Size	OD	mm(in)	□32 (1.3")			
		ID	mm(in)	Ø80 (3.1")			
	Indexing Time		sec/step	0.4			
LIVE TOOL	Motor (Max/Cont.)		kW(HP)	-	11/7.5 (14.8/10)	-	11/7.5 (14.8/10)
	Milling Tool Speed (rpm)		r/min	-	3,000	-	3,000
	Torque (Max/Cont.)		N·m(lbf·ft)	-	140/95.4 (103.3/70.4)	-	140/95.4 (103.3/70.4)
	Collet Size		mm(in)	-	Ø34 (1.3") - ER50	-	Ø34 (1.3") - ER50
	Type		-	-	BMT85	-	BMT85
TAIL STOCK (OPTION)	Taper		-	MT6 (Built-in)			
	Quill Dia.		mm(in)	Ø160 (6.3")			
	Quill Travel		mm(in)	132.5 (5.2")			
	Travel		mm(in)	1,580 (62.2")		3,180 (125.2")	
TANK CAPACITY	Coolant Tank		ℓ (gal)	570 (150.6)		770 (203.4)	
	Lubricating Tank		ℓ (gal)	4 (1.1)			
POWER SUPPLY	Electric Power Supply		kVA	54			
	Thickness of Power Cable		Sq	Over 50			
	Voltage		V/Hz	220/60 (200/50*)			
MACHINE	Floor Space (L×W)		mm(in)	7,077×3,075 (278.6"×121.1")		8,715×3,075 (343.1"×121.1")	
	Height		mm(in)	2,700 (106.3")			
	Weight		kg(lb)	18,000 (3,968)		23,500 (51,809)	
NC	Controller		-	FANUC 32i-B [FANUC i Series - Smart Plus]			

* Prior consultation is required when applying spindle contouring control for gear driven spindle.

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Specifications are subject to change without notice for improvement.

CONTROLLER

FANUC 32i-B

[]: Option

Controlled axis / Display / Accuracy Compensation	
Control axis	2 axis (X, Z) / 3 axis (X, Z, C) / 4 axis (X, Z, Y, C) 5 axis (X, Z, B, C, A) / 6 axis (X, Z, Y, B, C, A)
Simultaneously controlled axis	2 axis [Max. 4 axis]
Designation of spindle axis	4 axis (1 path), 6 axis (2 path Total)
Least setting Unit	X, Z, Y, B axis : 0.001 mm (0.0001 inch) C, A axis : 0.001 deg
Least input increment	X, Z, Y, B axis : 0.001 mm (0.0001 inch) C, A axis : 0.001 deg
Inch / Metric conversion	G20 / G21
High response vector control	
Interlock	All axis / Each axis
Machine lock	All axis
Backlash compensation	± 0 ~ 9999 pulses (Rapid traverse / Cutting feed)
Position switch	
LCD / MDI	10.4 inch color LCD
Feedback	Absolute motor feedback
Stored stroke check 1	Over travel
Stored stroke check 2, 3	
PMC axis control	
Operation	
Automatic operation (Memory)	
MDI operation	
DNC operation	Needed DNC software / CF card
Program restart	
Wrong operation prevention	
Program check function	Dry run, Program check
Single block	
Search function	Program Number / Sequence Number
Interpolation functions	
Nano interpolation	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Exact stop mode	Single : G09, Continuous : G61
Dwell	G04, 0 ~ 9999.9999 sec
Skip	G31
Reference position return	1st reference : G28 2nd reference : G30 Ref. position check : G27
Thread synchronous cutting	
Thread cutting retract	
Variable lead thread cutting	
Multi / Continuous threading	
Feed function / Acc. & Dec. control	
Manual feed	Rapid traverse Jog : 0~2,000 mm/min (79 ipm) Manual handle : x1, x10, x100 pulses Reference position return
Cutting Feed command	Direct input F code
Feedrate override	0 ~ 200% (10% Unit)
Rapid traverse override	F1%, F25%, 50%, F100%
Override cancel	
Feed per minute	G98
Feed per revolution	G99
Look-ahead block	1 block
Program input	
Tape Code	EIA / ISO
Optional block skip	1 ea
Program stop / end	M00, M01 / M02, M30
Maximum command unit	± 999,999.999 mm (± 99,999.9999 inch)
Plane selection	X-Y : G17 / Z-X : G18 / Y-Z : G19
Workpiece coordinate system	G52, G53, 6 pairs (G54 ~ G59)
Manual absolute	Fixed ON
Programmable data input	G10
Sub program call	10 folds nested
Custom macro	#100 ~ #149, #500 ~ #549
G code system	A
Programmable mirror image	G51.1, G50.1
G code preventing buffering	G4.1
Multiple repetitive cycles I, II	
Program input	

Canned cycle for turning	
Manual Guide i	Conversational auto program
Auxiliary function / Spindle speed function	
Auxiliary function	M 4 digit
Level-up M Code	High speed / Multi / Bypass M code
Spindle speed function	S 4 digit, Binary output
Spindle override	0% ~ 150% (10% Unit)
Multi position spindle orientation	M19
Rigid tapping	
Constant surface speed control	G96, G97
Tool function / Tool compensation	
Tool function	T 2 digit + Offset 2 digit
Tool life management	
Tool offset pairs	32 pairs
Tool nose radius compensation	G40, G41, G42
Geometry / Wear compensation	
Direct input of offset measured B	
Editing function	
Part program storage size	640m (256KB)
No. of registrable programs	500 ea
Program protect	
Background editing	
Extended part program editing	Copy, move and change of NC program
Memory card program edit	
Data input / output & Interface	
I/O interface	CF card, USB memory Embedded Ethernet interface
Screen hard copy	
External message	
External key input	
External workpiece number search	
Automatic data backup	
Setting, display and diagnosis	
Self-diagnosis function	
History display & Operation	Alarm & Operator message & Operation
Run hour / Parts count display	
Maintenance information	
Actual cutting feedrate display	
Display of spindle speed / T code	
Graphic display	
Operating monitor screen	Spindle / Servo load etc.
Power consumption monitoring	Spindle & Servo
Spindle / Servo setting screen	
Multi language display	Support 20 languages
Display language switching	Selection of 5 optional Languages
LCD Screen Saver	Screen saver
Unexpected disturbance torque	BST (Back spin torque limit)
Function for machine type	
Cs contour control (C & A axis)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polar coordinate interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Cylindrical interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Canned cycle for drilling	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Spindle orientation expansion	MS, SY TTS, TTMS, TTSY
Spindle synchronous control	MS, SY TTS, TTMS, TTSY
Torque control	MS, SY TTS, TTMS, TTSY
Y axis offset	Y, SY, TTSY
Arbitrary angular control	Y, SY, TTSY
Composite / Superimposed control	MS, SY TTS, TTMS, TTSY
Balance cutting	MS, SY TTS, TTMS, TTSY
Option	
Additional optional block skip	9 ea
Fast ethernet	Needed option board
Data server	Needed option board
Protection of data at 8 levels	
Tool offset pairs	64 pairs / 99 pairs / 200 pairs
Part program storage size	1280 m (512KB) / 2560m (1MB)
Polygon turning (2 Spindles)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Helical interpolation	
Dynamic graphic display	
Direct drawing dimension program	Including Chamfering / Corner R

Figures in inch are converted from metric values.

The FANUC controller specifications are subject to change based on the policy of company CNC supplying.

FANUC i Series - Smart Plus

[] : Option

Controlled axis / Display / Accuracy Compensation	
Control axis	2 axis (X, Z) / 3 axis (X, Z, C) / 4 axis (X, Z, Y, C) 5 axis (X, Z, B, C, A) / 6 axis (X, Z, Y, B, C, A) 7 axis (X1/Z1, X2/Z2, B2, C1/C2)
Simultaneously controlled axis	2 axis [Max. 4 axis]
Designation of spindle axis	3 axis [Max. 4 axis]
Least setting Unit	X, Z, Y, B axis : 0.001 mm (0.0001 inch) C, A axis : 0.001 deg
Least input increment	X, Z, Y, B axis : 0.001 mm (0.0001 inch) C, A axis : 0.001 deg
Inch / Metric conversion	G20 / G21
High response vector control	
Interlock	All axis / Each axis
Machine lock	All axis
Backlash compensation	± 0~9999 pulses (exc.Rapid traverse / Cutting feed)
Position switch	
LCD / MDI	15 inch LCD unit (with Touch Panel)
Feedback	Absolute motor feedback
Stored stroke check 1	Over travel
Stored stroke check 2, 3	
PMC axis control	
Operation	
Automatic operation (Memory)	
MDI operation	
DNC operation	Needed DNC software / CF card
Program restart	
Wrong operation prevention	
Program check function	Dry run
Single block	
Search function	Program Number / Sequence Number
Interpolation functions	
Nano interpolation	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Exact stop mode	Single : G09, Continuous : G61
Dwell	G04, 0 ~ 9999.9999 sec
Skip	G31
Reference position return	1st reference : G28, 2nd reference : G30 Ref. position check : G27
Thread synchronous cutting	G33
Thread cutting retract	
Variable lead thread cutting	
Multi / Continuous threading	
Feed function / Acc. & Dec. control	
Manual feed	Rapid traverse Jog : 0~2,000 mm/min (79 ipm) Manual handle : x1, x10, x100 pulses Reference position return
Cutting Feed command	Direct input F code
Feedrate override	0 ~ 200% (10% Unit)
Rapid traverse override	1%, F25%, 50%, 100%
Override cancel	
Feed per minute	G98
Feed per revolution	G99
Look-ahead block	1 block
Program input	
Tape Code	EIA / ISO
Optional block skip	9 ea
Program stop / end	M00, M01 / M02, M30
Maximum command unit	± 999,999.999 mm (± 99,999.9999 inch)
Plane selection	X-Y : G17 / Z-X : G18 / Y-Z : G19
Workpiece coordinate system	G52, G53, 6 pairs (G54 ~ G59)
Manual absolute	Fixed ON
Programmable data input	G10
Sub program call	10 folds nested
Custom macro	#100 ~ #199, #500 ~ #999
G code system	A, B/C
Programmable mirror image	G51.1, G50.1
G code preventing buffering	G4.1
Direct drawing dimension program	Including Chamfering / Corner R
Conversational Program	SmartGuide-i

Program input	
Multiple repetitive cycles I , II	
Canned cycle for turning	
Auxiliary function / Spindle speed function	
Auxiliary function	M & 4 digit
Level-up M Code	High speed / Multi / Bypass M code
Spindle speed function	S & 5 digit , Binary output
Spindle override	0% ~ 150% (10% Unit)
Multi position spindle orientation	M19 (S##)
Rigid tapping	
Constant surface speed control	G96, G97
Tool function / Tool compensation	
Tool function	T & 2 digit + Offset 2 digit
Tool life management	
Tool offset pairs	128 pairs
Tool nose radius compensation	G40, G41, G42
Geometry / Wear compensation	
Direct input of offset measured B	
Editing function	
Part program storage size	5,120m (2MB)
No. of registerable programs	1,000 ea
Program protect	
Background editing	
Extended part program editing	Copy, move and change of NC program
Memory card program edit	
Data input / output & Interface	
I/O interface	CF card, USB memory Embedded Ethernet interface
Screen hard copy	
External message	
External key input	
External workpiece number search	
Automatic data backup	
Setting, display and diagnosis	
Self-diagnosis function	
History display & Operation	Alarm & Operator message & Operation
Run hour / Parts count display	
Maintenance information	
Actual cutting feedrate display	
Display of spindle speed / T code	
Graphic display	
Operating monitor screen	Spindle / Servo load etc.
Power consumption monitoring	Spindle & Servo
Spindle / Servo setting screen	
Multi language display	Support 24 languages
Display language switching	Selection of 5 optional Languages
LCD Screen Saver	Screen saver
Unexpected disturbance torque	BST (Back spin torque limit)
Function for machine type	
Cs contour control (C & A axis)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polar coordinate interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Cylindrical interpolation	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Polygon turning (2 Spindles)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Canned cycle for drilling	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Spindle orientation expansion	MS, SY TTS, TTMS, TTSY
Spindle synchronous control	MS, SY TTS, TTMS, TTSY
Torque control	MS, SY TTS, TTMS, TTSY
Y axis offset	Y, SY, TTSY
Arbitrary angular control	Y, SY, TTSY
Composite / Superimposed control	MS, SY, TTS, TTMS, TTSY
Balance cutting	TTS, TTMS, TTSY
Option	
Fast ethernet	Needed option board
Data server	Needed option board
Protection of data at 8 levels	
Tool offset pairs	200 pairs
Helical interpolation	
Optional block skip	40 ea, 200 ea (AICC II)

Figures in inch are converted from metric values.

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L700A
Movie



L800D
Movie 1



L800D
Movie 2

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