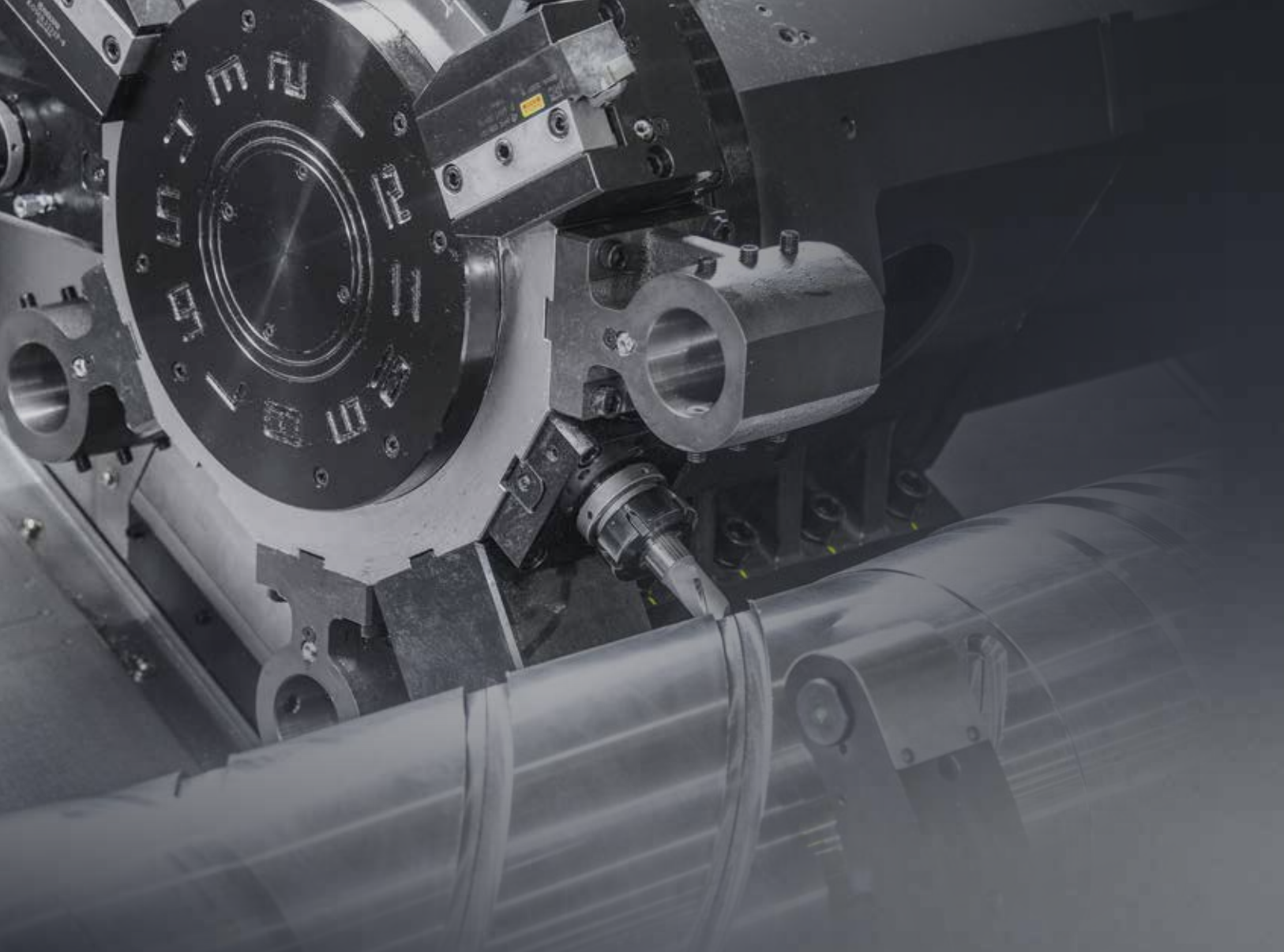
HYUNDAI
MOTOR GROUP

L 600L/700L Series

L600LA/LMA | L700LA/LMA

HYUNDAI WIA Heavy Duty CNC Turning Center

HYUNDAI WIA | CREATING VALUE IN SEAMLESS MOBILITY



Technical Leader

The CNC Turning Center L600L/700L Series designed by Hyundai WIA with years of expertise and the latest technology, is a Turning Center that maximizes productivity and performance.

		L600LA/LMA	L700LA/LMA
Max. Turning Dia.	mm(in)	Ø920 (36.2″)	
Max. Turning Length	mm(in)	3,250 (128″)	
Chuck Size	inch	[18″ / 21″ / 24″]	[24″ / 32″]
Bar Capacity	mm(in)	[18″] : Ø117 (Ø4.6″) / [21″, 24″] : Ø139 (Ø5.5″)	Ø165 (6.5″)
Spindle Speed (rpm)	r/min	[18″] : 1,800 / [21″] : 1,700 / [24″] : 1,400	[24″] : 1,500 / [32″] : 1,200
Motor (30min./Cont.)	kW(HP)	45/37 (60/50)	
Travel (X/Z)	mm(in)	500/3,280 (19.7″/129.1″)	
No. of Tools	EA	12/12 (BMT85)	

[ ] : Option

600L/700L 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
- 3 step gear box type main spindle
- Structure designed for machining long shafts and pipes with maximum turning length of 3,250mm (128")

01 BASIC STRUCTURE

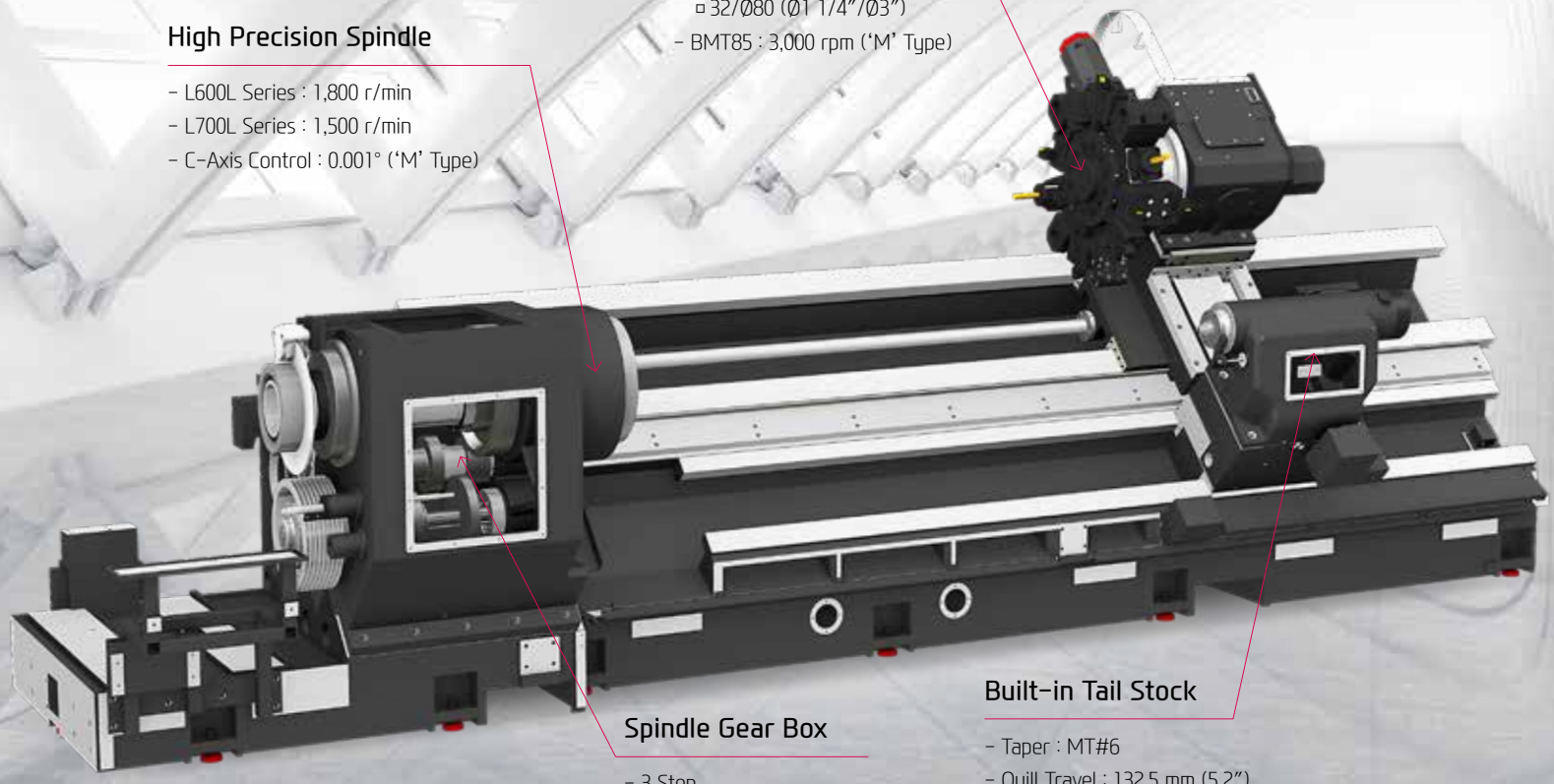
High Rigid Bed & Structure for Heavy Duty Cutting CNC Turning Center

Servo Turret

- No. of Tools : 12 EA
- Tool Size (O.D/I.D
  - ▫ 32/Ø80 (Ø1 1/4"/Ø3")
- BMT85 : 3,000 rpm ('M' Type)

High Precision Spindle

- L600L Series : 1,800 r/min
- L700L Series : 1,500 r/min
- C-Axis Control : 0.001° ('M' Type)



Spindle Gear Box

- 3 Step

Built-in Tail Stock

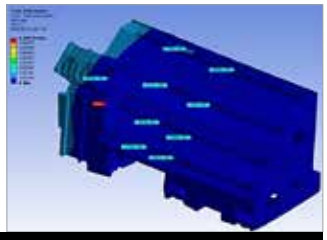
- Taper : MT#6
- Quill Travel : 132.5 mm (5.2")

POWERFUL CUTTING CAPABILITY & WIDE CUTTING AREA

ALL-IN-ONE TYPE OF BED

High Precision & Rigidity, One-Piece Structure

The L600L/700L 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)

8,715×3,075 mm (343.1″×121.1″)

GUIDEWAY

Box Guideway

The L600L/700L 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)

500/3,280 mm (19.7″/129.1″)

02 HIGH PRECISION **SPINDLE**

Long Lasting, High Accuracy & Excellent Performance CNC Turning Center

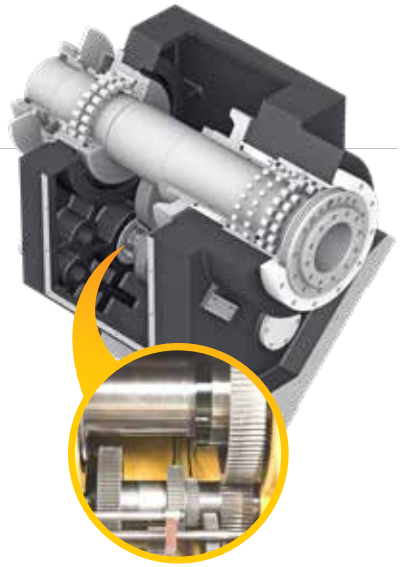
Spindle Specifications

[ ] : Option

MODEL	Spindle Speed	Motor (Max./Cont.)	Torque (Max./Cont.)	Driving Method
L600L Series	1,800 rpm	45/37 kW (60/50 HP)	5,610/4,621 N·m (4,137.7/3,408.3 lbf·ft)	Belt + 3 Step Gear
L700L Series	1,500 rpm	45/37 kW (60/50 HP)	6,928/5,700 N·m (5,109.8/4,204.1 lbf·ft)	
	[1,200 rpm]	[45/37 kW (60/50 HP)]	[6,928/5,700 N·m (5,109.8/4,204.1 lbf·ft)]	
	[Big Bore : 700 rpm]	[45/37 kW (60/50 HP)]	[7,045/5,795 N·m (5,196.1/4,274.2 lbf·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.

3 Step Spindle Gear Box

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

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

Max. Spindle Bore **Ø320** (Ø12.6") 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.

Spindle Bore	Big Bore : Ø320 mm (Ø12.6")

03 SERVO TURRET

High speed, High Accuracy, Highly Reliable Servo Turret

Servo Turret

No. of Tools	Tool Size (O.D/i.D)	Indexing Time
12 EA	□ 32/Ø80 mm (Ø1 1/4″/Ø3″)	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 L600LA/700LA 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.

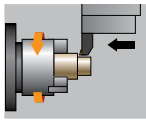
BMT85 Turret ('M' Type)

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.

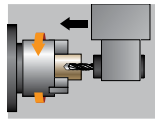
STRAIGHT MILLING HEAD	ANGULAR MILLING HEAD
	

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

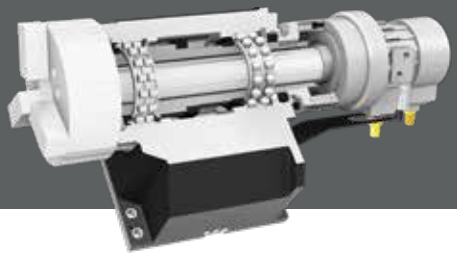
Various Devices for User Friendly

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 ″)

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

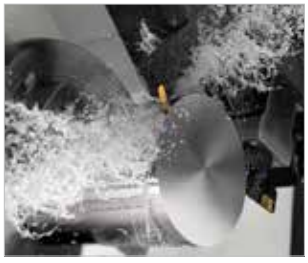
For long parts, such as shafts, the steady rest increases rigidity and minimizes vibration.

(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.

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.

SPECIFICATIONS

Standard & Optional

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

Spindle		L600LA	L600LMA
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	–	●
Straight Milling Head	Adaptor Type	–	●
Angular Milling Head	Adaptor Type	–	●
Boring Sleeve		●	●
Drill Socket		○	○
U-Drill Cap		●	●
Long Boring Bar I.D Holder		☆	☆
Angle Head		–	☆
Tail Stock & Steady Rest			
Built-In Tail Stock		●	●
Programable Tail Stock		●	●
Manual Type Steady Rest		☆	☆
Manual Type Hyd. Steady Rest		–	–
Programable Hyd. Steady Rest		○	○
Fixed center		●	●
2 Steps Tail Stock Pressure System		☆	☆
Quill Forward/Reverse Confirmation Device		○ (CE: ●)	○ (CE: ●)
Tail Stock Foot Switch (StandarWd 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	770 ℓ (203.4 gal)	●	●
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	☆	☆

Safety Device		L600LA	L600LMA
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		☆	☆
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)		○	○
Machine Monitoring System (HW-MMS Cloud)		☆	☆
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. / Please refer to the S/W catalog (iRiS) for details by S/W product.

SPECIFICATIONS

Standard & Optional

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

Spindle		L700LA	L700LMA
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		☆	☆
Angle Head		–	☆
Tail Stock & Steady Rest			
Built-In Tail Stock		●	●
Programable Tail Stock		●	●
Manual Type Steady Rest		☆	☆
Manual Type Hyd. Steady Rest		–	–
Programable Hyd. Steady Rest		○	○
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	770 ℓ (203.4 gal)	●	●
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	☆	☆

Safety Device		L700LA	L700LMA
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		– (Big Bore ○)	– (Big Bore ○)
Automatic Q-Setter		● (Big Bore –)	● (Big Bore –)
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		☆	☆
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)		○	○
Machine Monitoring System (HW-MMS Cloud)		☆	☆
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.

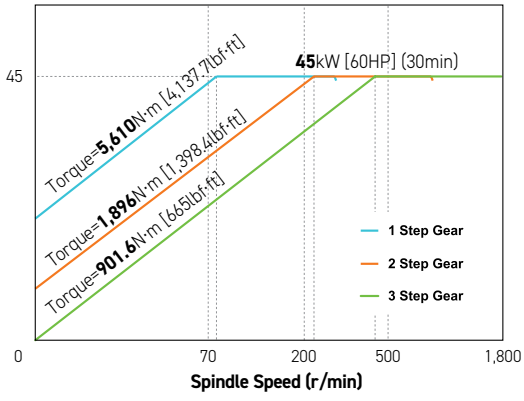
Specifications are subject to change without notice for improvement. / Please refer to the S/W catalog (iRiS) for details by S/W product.

SPECIFICATIONS

Spindle Output/Torque Diagram

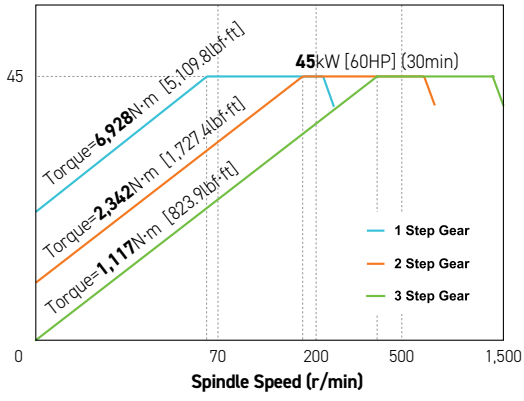
L600L Series 1,800 rpm

Power(kW [HP])



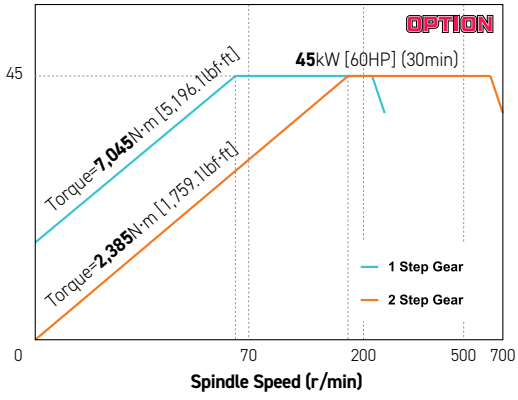
L700L Series 1,500 rpm

Power(kW [HP])



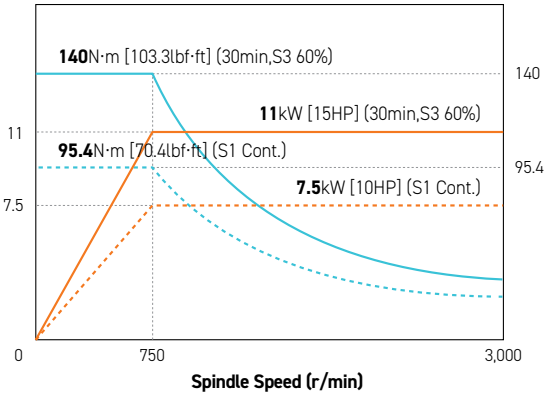
L700L Series (BIG BORE) 700 rpm

Power(kW [HP])



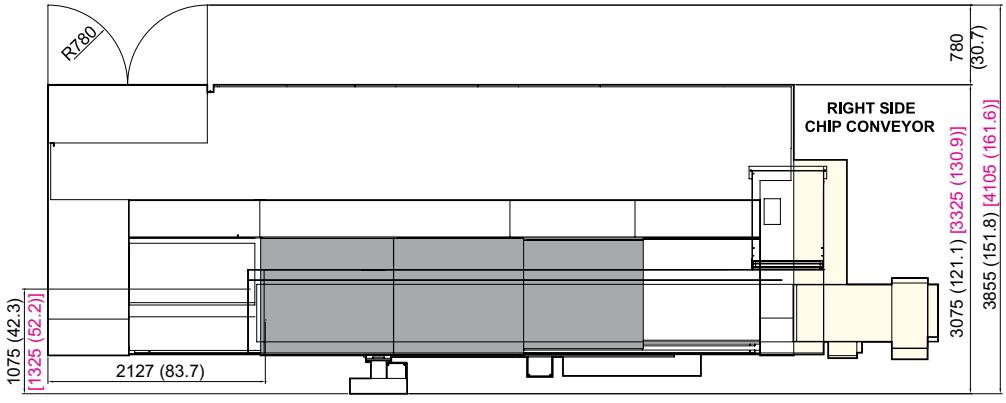
Mill Turret 3,000 rpm

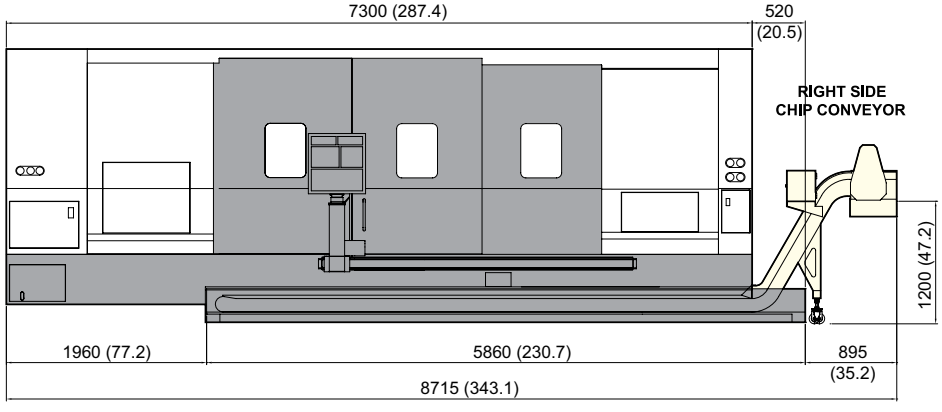
Power(kW [HP]) **Torque (N·m [lbf·ft])**

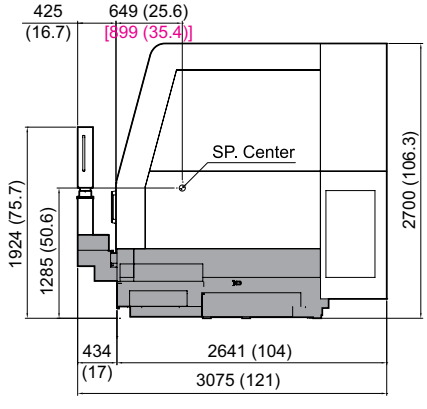


External Dimensions

unit : mm(in)







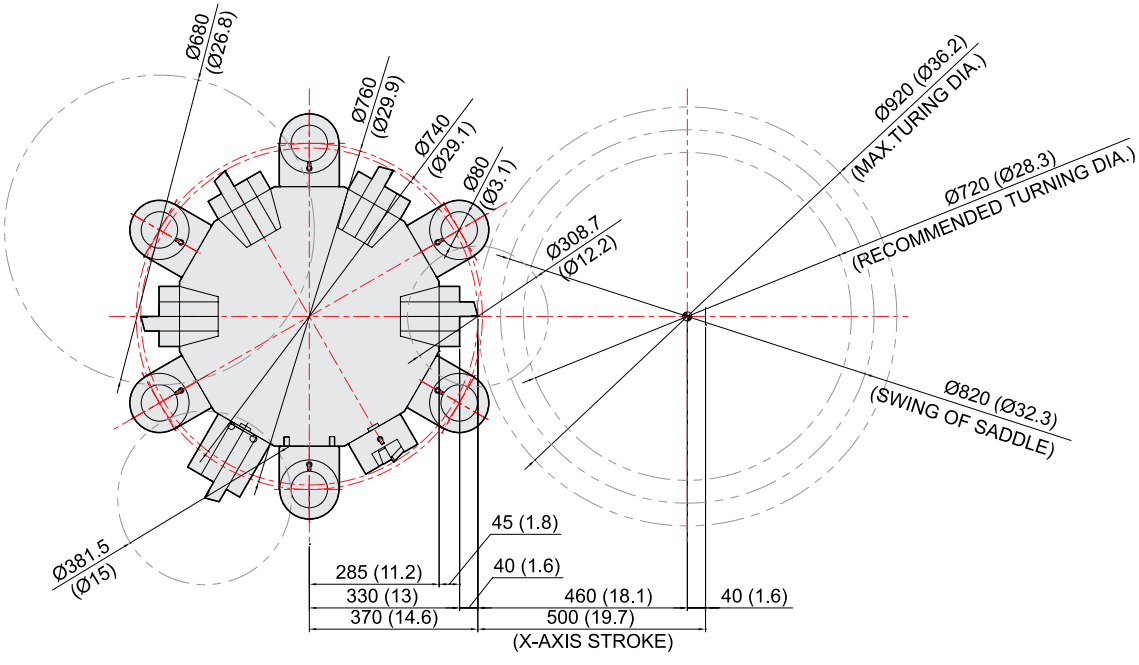
[When applying K6.1 steady rest device]

SPECIFICATIONS

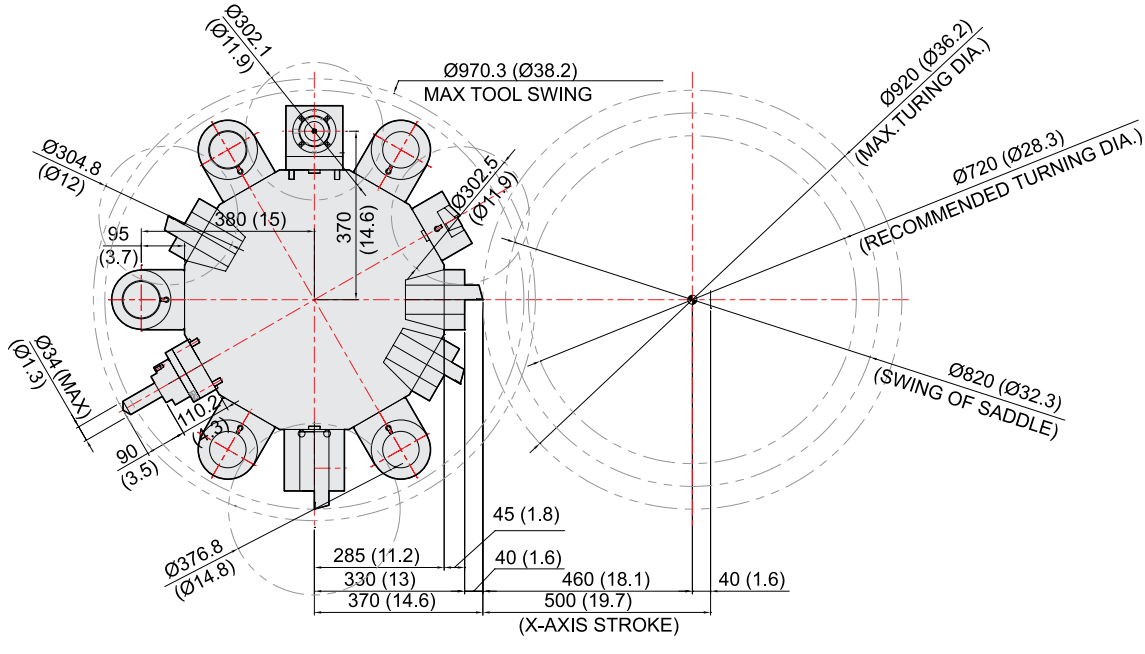
Interference

unit : mm(in)

L600LA/700LA



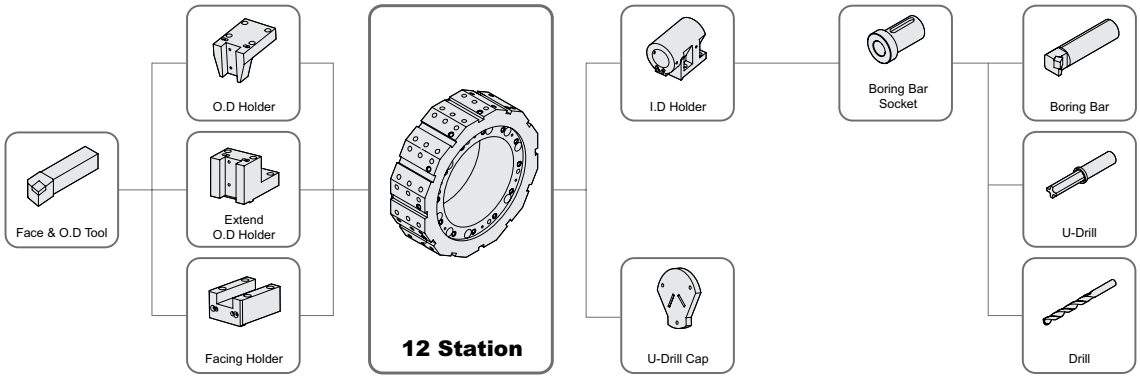
L600LMA/700LMA



Tooling System

unit : mm(in)

L600LA/700LA



L600L/700L Series Tooling Parts Detail

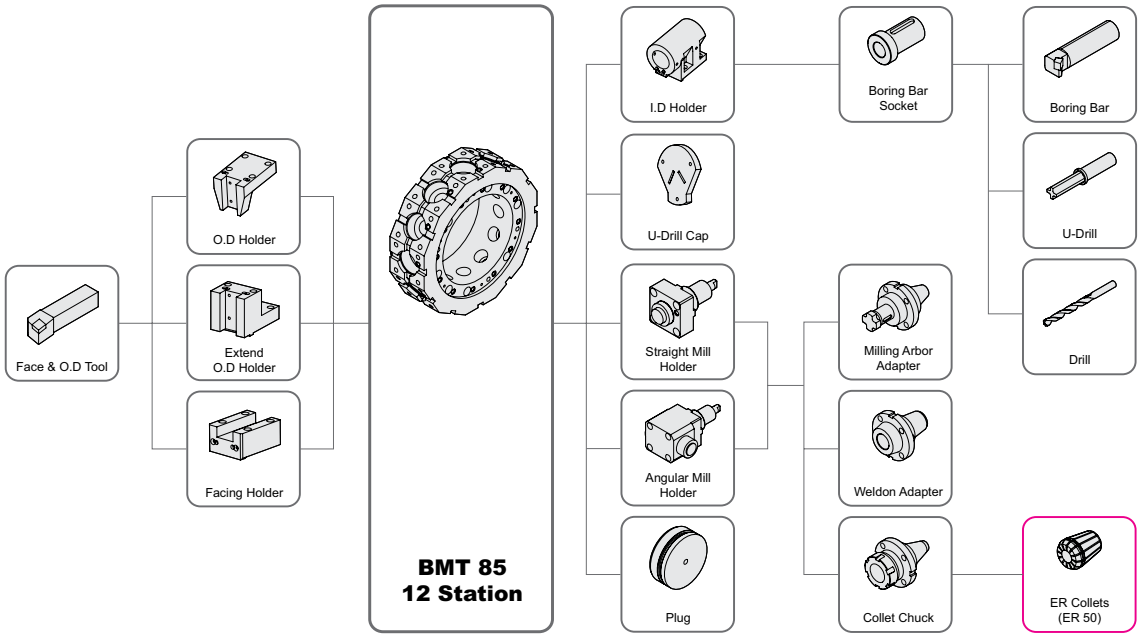
ITEM			L600LA/700LA	
			mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	4	4
		Extended	1	1
	Facing Holder		1	1
Boring Holder	I.D Holder	Single	6	6
		Long (SET)	Opt	-
Driven Holder	Straight Mill Holder	Standard	-	-
	Angular Mill Holder	Standard	-	-
Socket	Boring	Ø20 (Ø3/4")	1	1
		Ø25 (Ø1")	1	1
		Ø32 (Ø1 1/4")	1	1
		Ø40 (Ø1 1/2")	1	1
		Ø50 (Ø2")	1	1
		Ø60 (Ø2 1/4")	1	1
	Drill	MT 3	Opt	Opt
		MT 4	Opt	Opt
		MT 5	Opt	Opt
	Adapter Set		-	-

SPECIFICATIONS

Tooling System

unit : mm(in)

L600LMA/700LMA



L600L/700L Series Tooling Parts Detail

ITEM			L600LMA/700LMA	
			mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	3	3
		Extended	1	1
	Facing Holder		1	1
Boring Holder	I.D Holder	Single	5	5
		Long (SET)	Opt	-
Driven Holder	Straight Mill Holder	Standard	1	1
	Angular Mill Holder	Standard	1	1
Socket	Boring	Ø20 (Ø3/4")	1	1
		Ø25 (Ø1")	1	1
		Ø32 (Ø1 1/4")	1	1
		Ø40 (Ø1 1/2")	1	1
		Ø50 (Ø2")	1	1
		Ø60 (Ø2 1/4")	1	1
	Drill	MT 3	Opt	Opt
		MT 4	Opt	Opt
		MT 5	Opt	Opt
	Adapter Set		1 Set	1 Set

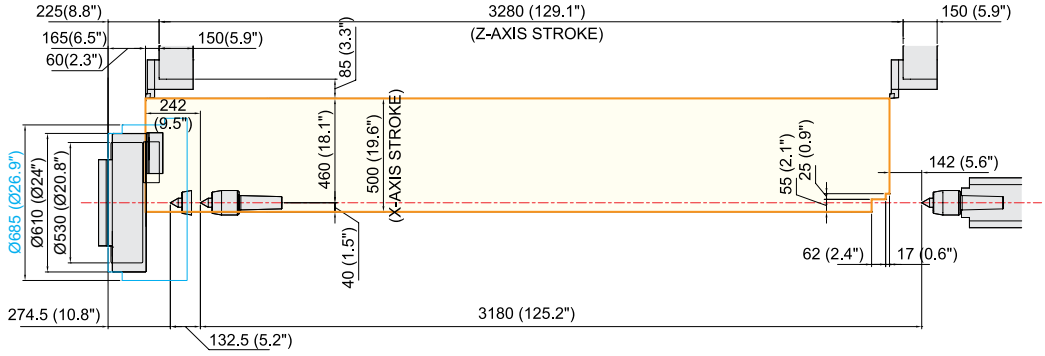
Specifications are subject to change without notice for improvement. (Driven Holder – EWS : Standard, Eppinger : Option)

Interference

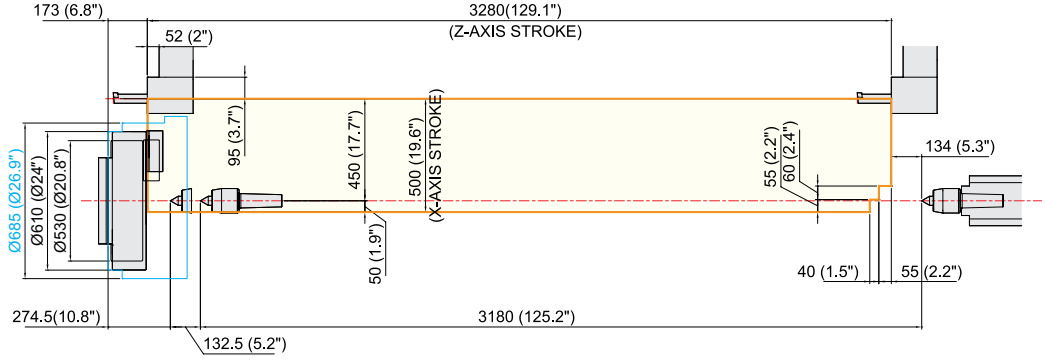
unit : mm(in)

L600LA/600LMA/700LA/700LMA

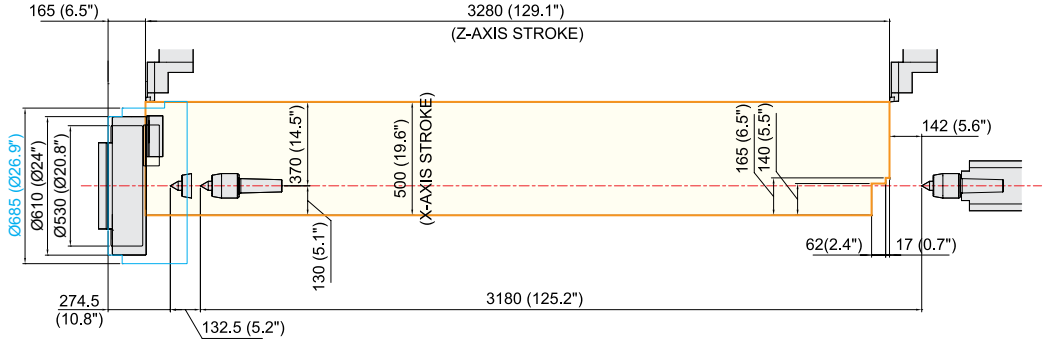
OD TOOL HOLDER



ID TOOL HOLDER



EXTEND OD TOOL HOLDER



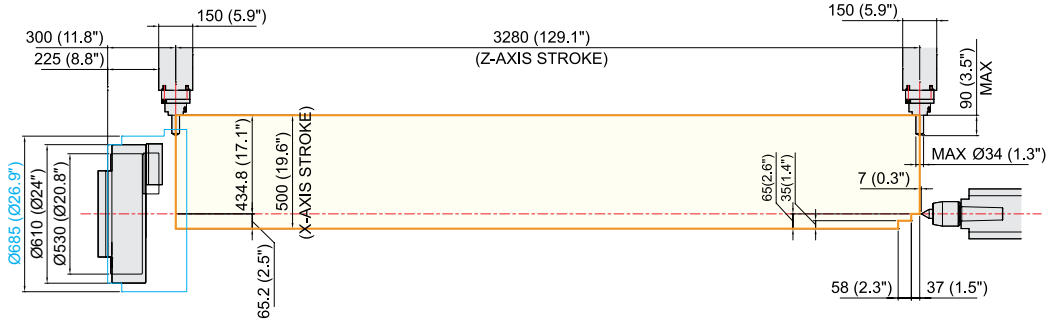
SPECIFICATIONS

Tooling Travel Range

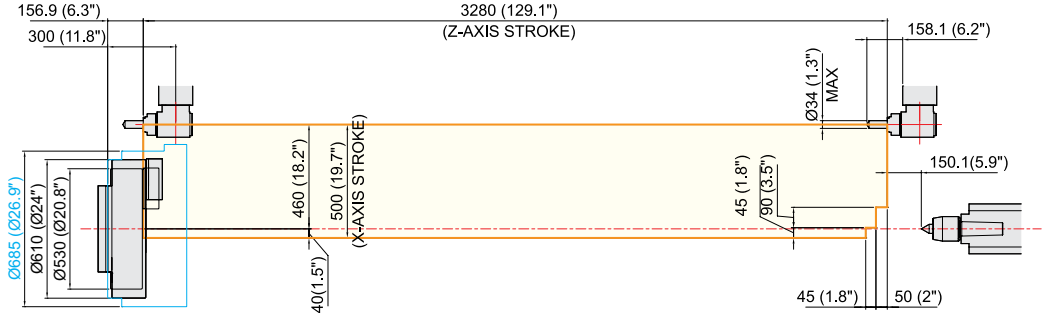
unit : mm(in)

L600LMA/700LMA

STRAIGHT MILLING HEAD



ANGULAR MILLING HEAD



SPECIFICATIONS

Specifications

[ ] : Option

ITEM				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)	3,250 (128″)	
SPINDLE	Bar Capacity		mm(in)	[18″] : Ø117 (Ø4.6″) / [21″, 24″] : Ø139 (Ø5.5″)	
	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°
FEED	Travel (X/Z)		mm(in)	500/3,280 (19.7″/129.1″)	
	Rapid Traverse Rate (X/Z)		m/min	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)
	Milling Tool Speed (rpm)		r/min	-	3,000
	Torque (Max/Cont.)		N·m(lbf·ft)	-	140/95.4 (103.3/70.4)
	Collet Size		mm(in)	-	Ø34 (1.3″) - ER50
	Type		-	-	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)	3,180 (125.2″)	
TANK CAPACITY	Coolant Tank		ℓ (gal)	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)	8,715×3,075 (343.1″×121.1″)	
	Height		mm(in)	2,700 (106.3″)	
	Weight		kg(lb)	23,500 (51,809)	
NC	Controller		-	FANUC 32i-B [HYUNDAI WIA FANUC i Series - Smart Plus]	

*) Using 50Hz voltage instead of 60Hz may lower the output of motors. (excluding servo motors and inverter motors)
※ Prior consultation is required when applying spindle contouring control for gear driven spindle.
Specifications are subject to change without notice for improvement.

SPECIFICATIONS

Specifications

[ ] : Option

ITEM				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)	3,250 (128")	
SPINDLE	Bar Capacity		mm(in)	Ø165 (6.5")	
	Chuck Size		inch	Opt. [24" / 32"]	
	Spindle Bore		mm(in)	Ø181 (7.1")	
	Spindle Speed (rpm)		r/min	[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°
BIG BORE SPINDLE (Option)	Bar Capacity		mm(in)	[Hydraulic : Ø239 (9.4") / Air, Independent : Ø319 (12.6")]	
	Chuck Size		inch	[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 Nose		-	[A1-20]	
FEED	Travel (X/Z)		mm(in)	500/3,280 (19.7"/129.1")	
	Rapid Traverse Rate (X/Z)		m/min	12/12	
	Slide Type		-	BOX GUIDE	
TURRET	No. of Tools		EA	12	
	Tool Size	OD / ID	mm(in)	□ 32 (1.3") / Ø80 (3.1")	
	Indexing Time		sec/step	0.4	
LIVE TOOL	Motor (Max/Cont.)		kW(HP)	-	11/7.5 (14.8/10)
	Milling Tool Speed (rpm)		r/min	-	3,000
	Torque (Max/Cont.)		N·m(lbf·ft)	-	140/95.4 (103.3/70.4)
	Collet Size		mm(in)	-	Ø34 (1.3") - ER50
	Type		-	-	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)	3,180 (125.2")	
TANK CAPACITY	Coolant Tank		ℓ (gal)	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)	8,715×3,075 (343.1"×121.1")	
	Height		mm(in)	2,700 (106.3")	
	Weight		kg(lb)	23,500 (51,809)	
NC	Controller		-	FANUC 32i-B [HYUNDAI WIA FANUC i Series - Smart Plus]	

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

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

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 registerable 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.

CONTROLLER

HYUNDAI WIA FANUC i Series – Smart Plus

[ ] : Option

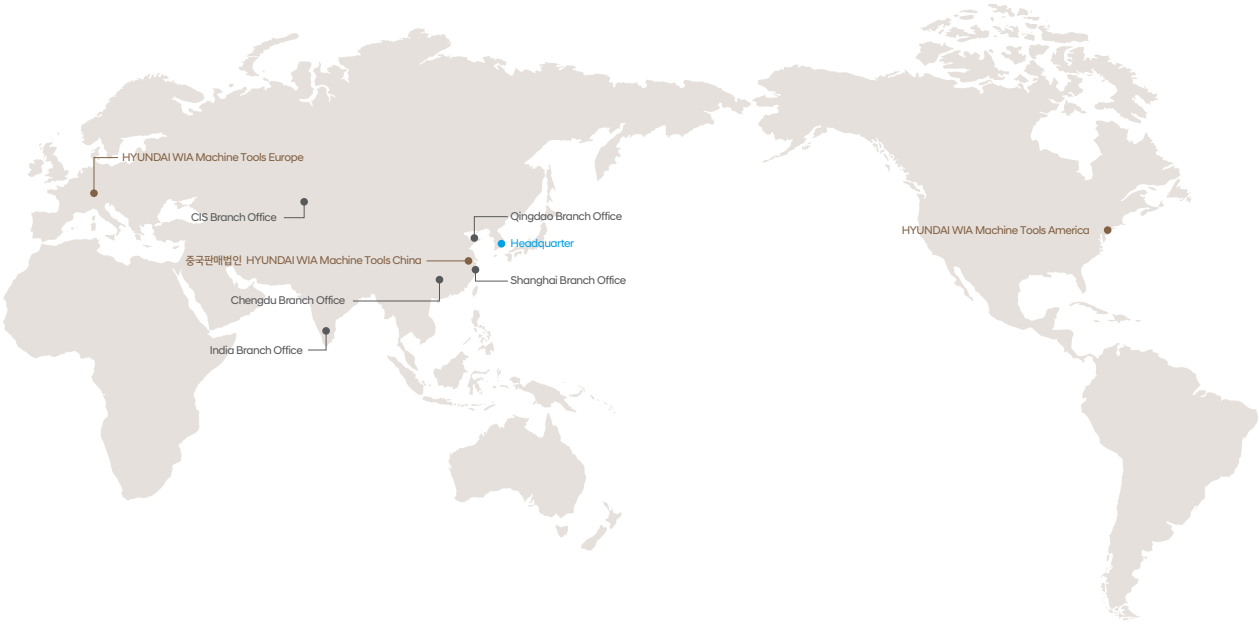
Controlled axis / Display / Accuracy Compensation	
Control axis	2 axis (X, Z) / 3 axis (X, Z, C) / 4 axis (X,Z,Y,C)
	5 axis (X, Z, B, C, A) / 6 axis (X, Z, Y, B, C, A)
	7 axis (X1/Z1, X2/Z2, B2, C1/C2)
Simultaneously controlled axis	2 axis [Max. 4 axis]
Designation of spindle axis	3 axis [Max. 4 axis]
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.
The FANUC controller specifications are subject to change based on the policy of company CNC supplying.

GLOBAL NETWORK



HEADQUARTER

R&D Center/Factory

153, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea

TEL : +82 55 280 9114

Overseas Sales Team /R&D Center

37, Cheoldobangmulgwan-ro, Uiwang-si, Gyeonggi-do, Korea

TEL : +82 31 8090 2539

EUROPE

HYUNDAI WIA Machine Tools Europe

Alexander-Fleming-Ring 57, DE-65428 Russelsheim am Main, Germany

TEL : +49-0-6142-9256-0

AMERICA

HYUNDAI WIA Machine Tools America

450 Commerce Blvd, Carlstadt, NJ 07072, USA

TEL : +1-201-987-7298

ASIA

HYUNDAI WIA Machine Tools China

Company No.16 Fenghuang Road, Fenghuang Town, Zhangjiagang City, Jiangsu Province, China

TEL : +86-512-5637-9719

Shanghai Branch Office (China)

3F-04, MT1, MixC Park, No.229, HaowenRoad, Minhang District, Shanghai, China

TEL : +86-21-6427-9885

Chengdu Branch Office (China)

Room 409B, Building 1, No.333, Yizhou Road, High-Tech District, Chengdu, China

TEL : +86-21-5952-3256

Qingdao Branch Office (China)

Room 702, Yulong International Center, Building 1, No. 178-2, Haier Road, Laoshan District, Qingdao, China. C.P. 266035

TEL : +86-28-8666-2985

CIS Branch Office

050051, Kazakhstan, Almaty, Elebekova street 10, B.3, Office no.103

TEL : +7-(727)-355-7133

India Branch Office

#4/169, 1st Floor, LOTTE BLDG, Rajiv Gandhi Salai, (OMR), Kandanchavadi, Chennai -600 096, Tamilnadu, India

TEL : +91-76049-01618

HYUNDAI WIA

YouTube HYUNDAI WIA MT
www.youtube.com/HYUNDAIWIAMT

CREATING VALUE IN SEAMLESS MOBILITY

With its top-quality HYUNDAI WIA machine tool creates a new and better world.

http://machine.hyundai-wia.com
HYUNDAI WIA Machine Tools
Global Links

2024-02 002.013 ENG