

**SE**

# 2600 Series

High-speed 10" CNC Turning Center for Productivity

HYUNDAI WIA Middle Type CNC Turning Center



# Technical Leader ▶

The CNC Turning Center SE2600 Series, designed with HYUNDAI WIA's engineering expertise to maximize productivity by enhancing rigidity and accuracy of machining.

SE2600		SE2600M
Max. Turning Dia.	mm(in)	Ø600 (Ø23.6")
Max. Turning Length	mm(in)	660 (26")
Chuck Size	inch	10"
Bar Capacity	mm(in)	Ø81 (Ø3.2")
Spindle Speed (rpm)	r/min	3,500 [2,500]
Motor (Max.)	kW(HP)	18.5/15 (25/20) [26/18.5 (35/25)]
Travel (X/Z)	mm(in)	265/680 (10.4"/26.8")
No. of Tools	EA	10 [12] 12 [24] (BMT55)

[ ] : Option

SE

# 2600 Series

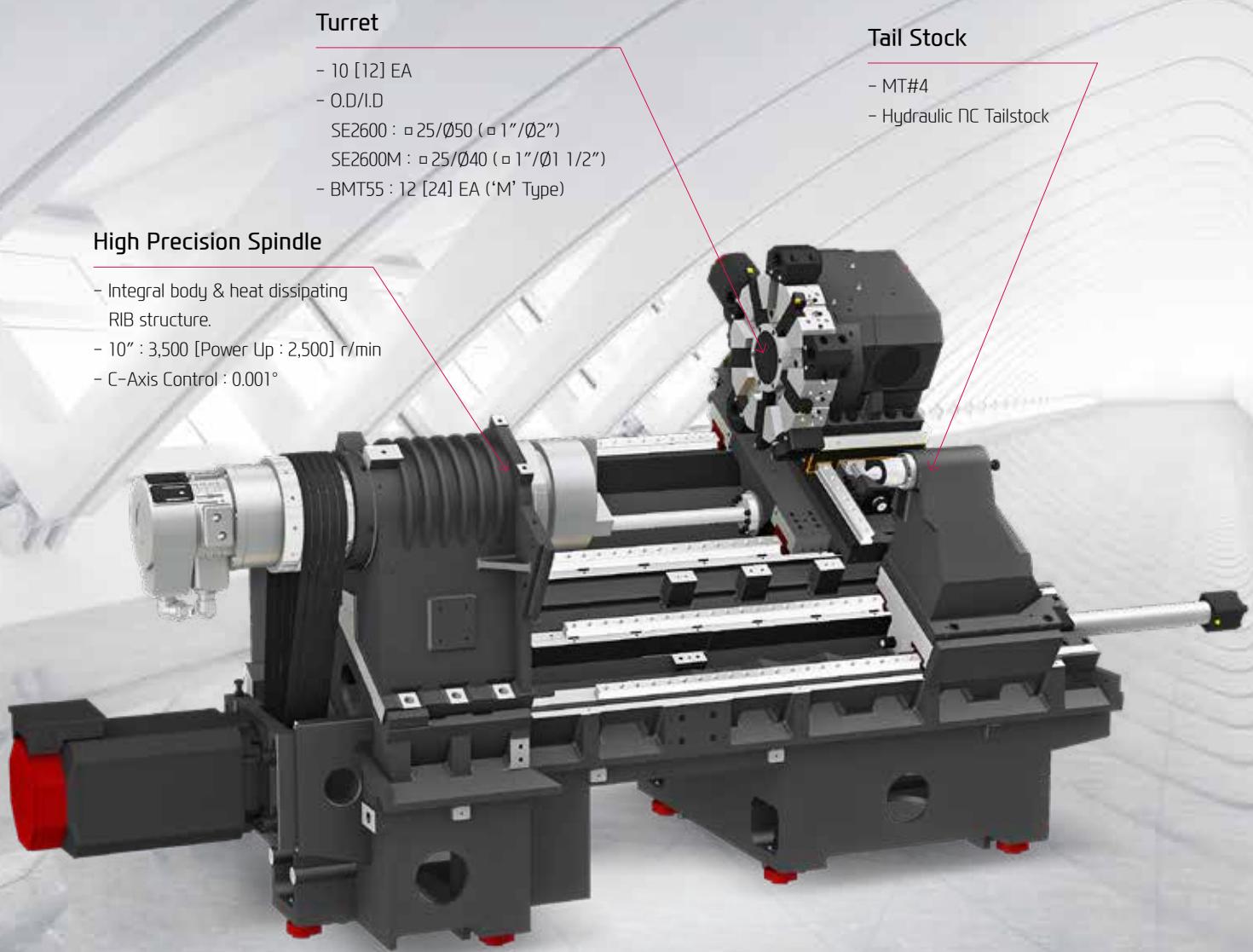
High-speed 10" CNC Turning Center for Productivity

- 30° slanted one-piece bed structure with high rigidity
- Ensured high-rigidity applying Roller guideway on all axes (X/Z-axis: 30/30 m/min)
- High-rigidity and high-speed servo turret (Expanded disk width)
- Improved user convenience by applying the latest controller of FANUC
- Ergonomic design for convenient access to chuck and tool



# 01 BASIC STRUCTURE

The Best Productivity 10" CNC Turning Center

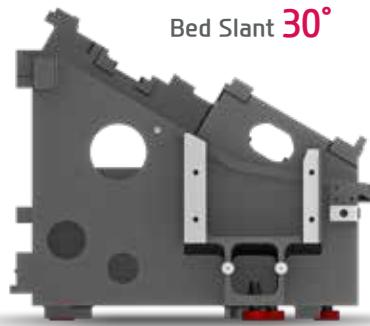


# REDUCTION OF NON-CUTTING TIME BY FAST RAPID SPEED

## ALL-IN-ONE TYPE OF BED

### Optimal Structural Analysis

Structural analysis was applied to the design of the machine to increase the tool post body and reduce the machine's height so as to maintain the bed's dynamic rigidity even during high-speed machining. In addition, the SE2600 Series bed slope is pitched at 30 degrees to ensure more stable machining.



### ENHANCED VIBRATION ABSORPTION THANKS TO INCREASED GROUND AREA

<b>Floor Space (L×W)</b>	<b>3,255×1,900 mm (128.1"×74.8")</b>
--------------------------	--------------------------------------

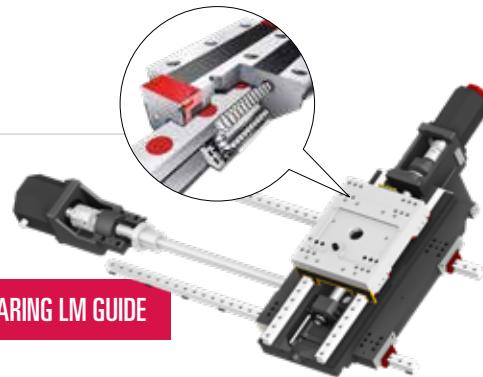
## GUIDEWAY

### High-Speed Roller LM Guideway

Linear roller guideways are applied to reduce non-cutting time and bring high rigidity.

### RIGIDITY HAS INCREASED 30% COMPARED TO THE BALL BEARING LM GUIDE

<b>Rapid Traverse Rate (X/Z)</b>	<b>30/30 m/min (1,181/1,181 ipm)</b>
----------------------------------	--------------------------------------



### Ball Screw

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

### Travel (X/Z)

<b>SE2600</b>	<b>SE2600M</b>
---------------	----------------

<b>265/680 mm (10.4"/26.8")</b>	<b>255/680 mm (10"/26.8")</b>
---------------------------------	-------------------------------

04	+	05
----	---	----

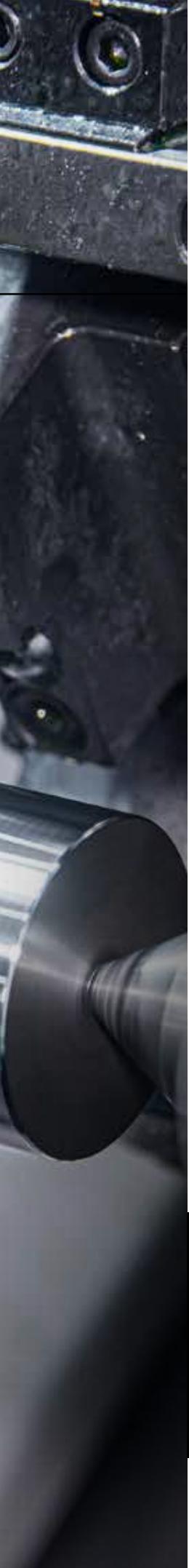
# 02 HIGH PRECISION SPINDLE

Long Lasting, High Accuracy & Excellent Performance CNC Turning Center

## Spindle Specifications

[ ] : Option

Model	Spindle Speed	Motor (Max./Cont.)	Torque (Max./Cont.)
SE2600 Series	3,500 rpm	18.5/15 kW (25/20 HP)	470.9/286.4 N·m (347.3/211.2 lbf·ft)
	[2,500 rpm]	[26/18.5 kW (35/25 HP)]	[734/522 N·m (541.4/385 lbf·ft)]

A vertical strip on the left side of the page showing a close-up of a machine's internal components, specifically two circular sensors mounted on a metal frame.

Spindle

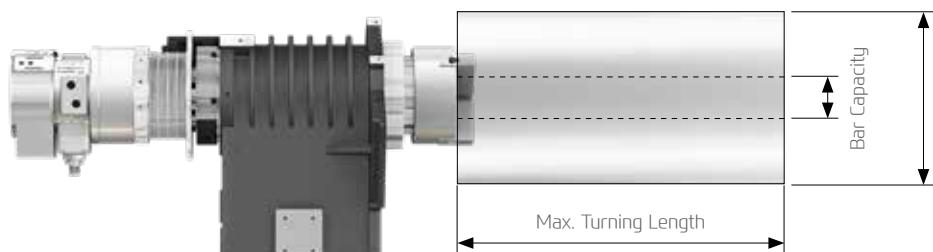
# HEAVY DUTY CUTTING & HIGH ACCURACY

## MAIN SPINDLE

### Spindle for Heavy Cutting

The main spindle is designed with the same structure as that often found in larger sized machines. The combination of double cylindrical roller bearings and angular contact ball bearings leads to excellent heavy duty cutting performance. Also, machining performance is enhanced by applying **ribstar belt** to minimize noise and belt slipping problems.

The spindle is designed with a labyrinth structure to minimize possible bearing damage from coolant and to improve machining stability.

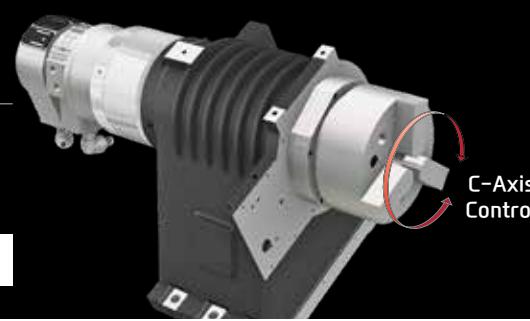


Model	Chuck Size	Max. Turning Length	Max. Turning Dia.	Bar Capacity
SE2600	10 inch	660 mm (26")	Ø460 mm (18.1")	Ø81 mm (3.1")
SE2600M				

## C-AXIS CONTROL

The main spindle of the SE2600 series is a **Bz sensor**, so it is possible to process products of various shapes through C-axis control.

C-Axis Control : 0.001°



# 03 SERVO TURRET

High speed, High Accuracy, Highly Reliable Servo Turret



Servo Turret (SE2600)

No. of Tools	Tool Size (O.D/I.D)	Indexing Time
10 [12] EA	□ 25/Ø50 mm (□ 1"/Ø2")	0.15 sec

Mill Turret (SE2600M)

Type	Speed	Motor (Max./Cont)	Torque (Max./Cont)	Collet Size
BMT55	6,000 rpm	5.5/3.7 kW (7.4/5 HP)	52.5/26.5 N·m (38.7/19.5 lbf.ft)	ER25 (Ø16)

Quantity of mill turret tools: Std. 2ea / Opt. 24ea - Various machining with increased capacity (Prior model : max. 12ea)

# VARIOUS DRIVEN PRECISION BMT TOOL HOLDERS

## SERVO TURRET



### Servo Turret (SE2600)

The turret of SE2600 series is applied with high performance AC servo motor, improving machining reliability. 3-piece coupling shows excellent performance in indexing. Powerful hydraulic tool clamping minimizes tool tip deviation caused by load.

### 70Bar High Pressure Coolant **OPTION**

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



## MILL TURRET

### BMT55 Turret (SE2600M)

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.



### Mill Tool Holder

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

STRAIGHT MILLING HEAD

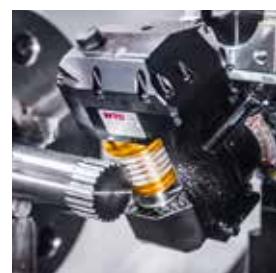


ANGULAR MILLING HEAD



### Increased Rotating Tools

**Straight and angular milling haed 1ea > 2ea, respectively**



### Special Tool

**OPTION**

The SE600M can process high value-added products using a variety of rotating tools. In particular, there is a multi-holder for attaching a variety of tools to one holder, and an eccentric rotary tool for handling eccentric parts without additional axis travel, which can realize integration of process with one machine.

❖ Consultation needed when ordering these options.

# 04 USER CONVENIENCE

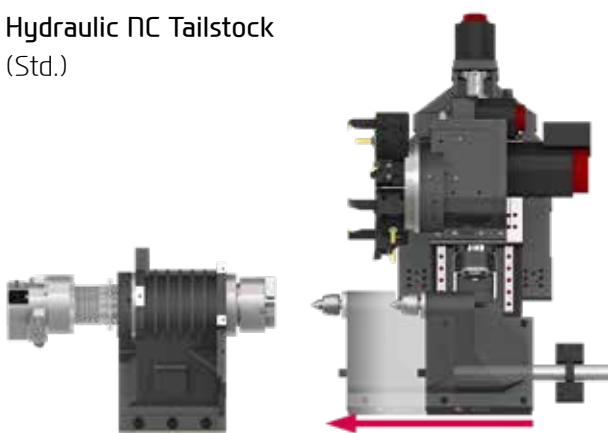
Various Devices for User Friendly

## HYDRAULIC NC TAILSTOCK

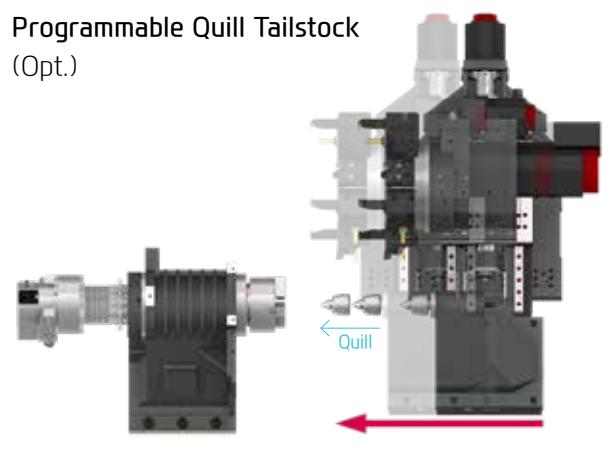
### Hydraulic NC Tailstock with Position Control

The hydraulic NC tailstock applied to the SE2600 series enables independent transfer through a program independently of the turret movement and it simultaneously achieved "Improvement of user convenience" and "Reduction of cycle time".

Hydraulic NC Tailstock  
(Std.)

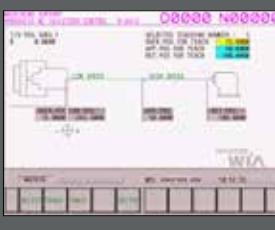


Programmable Quill Tailstock  
(Opt.)



- > Structure in which the tailstock moves independently from the turret (Position control : 0.1mm)
- > Stabilization of tailstock body hydraulic pressure
- > Turret moves independently while the tailstock moves to reduce machining setup time
- > Standard application (MT#4 live center application)

- > A structure that moves by fixing the tailstock to the turret
- > After fixing the tailstock, the quill operated by hydraulic pressure advances to stabilize the material
- > High rigidity tail spindle and enhancement in thrust
- > Suitable for workpieces subject to vibration during machining and heavy machining load



### HW-TMS (TAILSTOCK OPERATION)

This software is capable of manipulation and data management of tailstock operations through intuitive GUI.



## CHIP DISPOSAL SOLUTION

### Separation Type Coolant Tank

The user convenience has been significantly improved by the separation type coolant tank without having to separate the chip conveyor.



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

❖ When ordering a screw or drum filter chip conveyor, prior consult with hyundai wia's sales person.

## HIGH PRECISION SYSTEM & COOLANT UNIT



Automatic Q-Setter



Linear Scale



Work Probe



Standard Coolant (Nozzle)



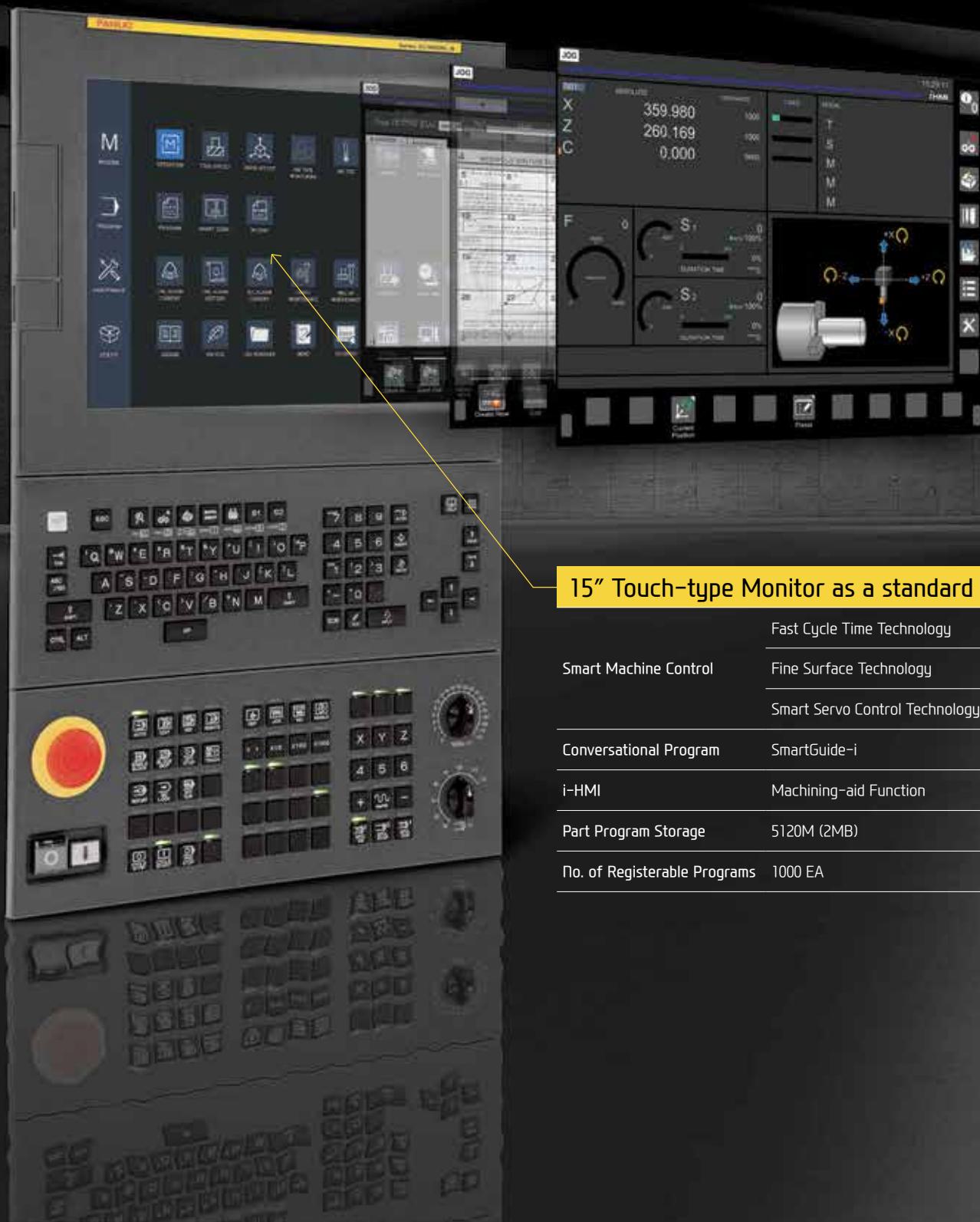
Chuck Coolant (Upper Chuck)



Chuck Air Blow (Upper Chuck)

# 05 HYUNDAI WIA FANUC – SMART PLUS

The Compatible All-round Control

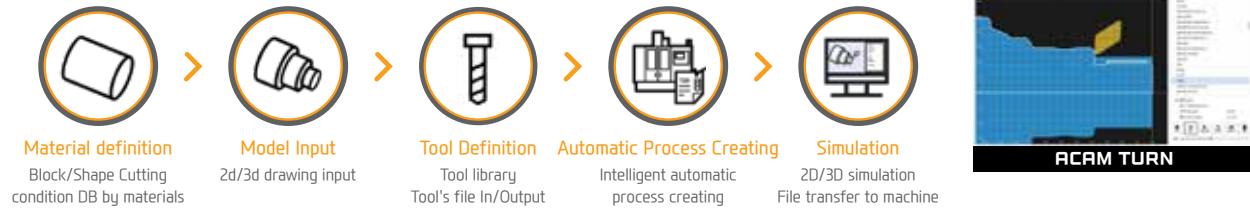


## 15" Touch-type Monitor as a standard

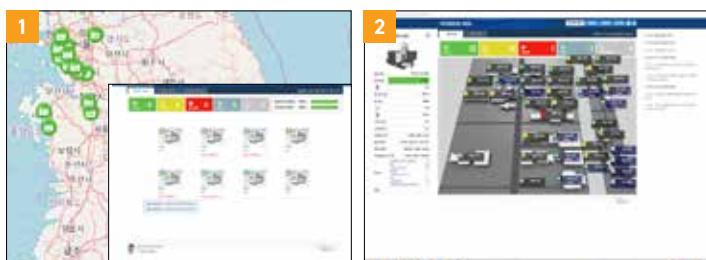
Fast Cycle Time Technology	
Smart Machine Control	Fine Surface Technology
	Smart Servo Control Technology
Conversational Program	SmartGuide-i
i-HMI	Machining-aid Function
Part Program Storage	5120M (2MB)
No. of Registerable Programs	1000 EA

## ACAM (Automatic CAM)

Cloud-based automatic CAM S/W that automatically creates NC programs only by inputting drawing files



## MMS (Machine Monitoring System)



### 1. MMS Cloud

A cloud server-based equipment monitoring system for collecting and analyzing facility operation data.

### 2. MMS Edge

A client server-based tool monitoring system for collection/analysis of facility operation data. (Compatible with client MES / ERP interface)

## 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

	SE2600	SE2600M
<b>Spindle</b>		
Main Sp. Hollow Chuck 3 Jaw	10"	●
	12"	○
Main Sp. Solid Chuck 3 Jaw	10"	○
	12"	-
Standard Soft Jaw (1set)	●	●
Chuck Clamp Foot Switch	●	●
2 Steps Hyd. Pressure Device	○	○
Spindle Inside Stopper	☆	☆
Cs-Axis	● (0.03°)	● (0.001°)
Chuck Open/Close Confirmation Device	●	●
2 Steps Chuck Foot Switch	○	○
<b>Turret</b>		
Tool Holder	●	●
Mill Turret	BMT	-
Straight Milling Head (Axial)	Collet Type, 2ea	-
		●
Angular Milling Head (Radial)	Collet Type, 2ea	-
		●
Straight Milling Head (Axial)	Adapter Type	-
		○
Angular Milling Head (Radial)	Adapter Type	-
		○
Boring Sleeve	●	●
Drill Socket	○	○
U-Drill CAP	●	●
Angle Head	-	☆
<b>Tail Stock &amp; Steady Rest</b>		
Hydraulic NC Tail Stock (Std. Live Center)	●	●
	Manual	○
	Programable	○
Quill Type Tail Stock	MT4 Live	○
	MT5 Live	○
	MT4 Built-in	○
High Precision Live Center	☆	☆
2 Steps Tail Stock Pressure System	-	-
Quill Forward/Reverse Confirmation Device	○	○
Tail Stock Foot Switch	○	○
<b>Coolant &amp; Air Blow</b>		
Standard Coolant (Nozzle)	●	●
Chuck Coolant (Upper Chuck)	○	○
Gun Coolant	○	○
Through Spindle Coolant (Only for Special Chuck)	☆	☆
Chuck Air Blow (Upper Chuck)	-	-
Sub Chuck Air Blow	○	○
Turnmill Through Coolant	-	○
Tail Stock Air Blow (Upper Tail Stock)	○	○
Turret Air Blow	☆	☆
Air Gun	○	○
Through Spindle Air Blow (Only for Special Chuck)	-	-
	0.5Bar	●
High Pressure Coolant	6Bar	○
	20Bar	○
	70Bar	○
Power Coolant System (For Automation)	☆	☆
Coolant Chiller (When selecting Sub Tank Type, Chip Conveyor)	-	-
<b>Chip Disposal</b>		
Coolant Tank	Front(200 l [52.8 gal])	●
	Rear(150 l [39.6 gal])	○
Chip Conveyor (Hinge/Scraper/Screw)	Front (Right)	○
	Rear (Rear)	○
Special Chip Conveyor (Drum Filter)	-	-
Chip Wagon	Standard (180 l [47.5 gal])	○
	Swing (200 l [52.8 gal])	○
	Large Size (330 l [87.2 gal])	○
	Customized	☆
<b>Safety Device</b>		
Front Door Interlock	●	●
Total Splash Guard	●	●
Back Spin Torque Limiter (BST)	●	●
Chuck Hydraulic Pressure Maintenance Interlock	☆	☆
<b>ETC</b>		
Tool Box	●	●
Customized Color	Need Munsell No.	☆
CAD & CAM	☆	☆

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

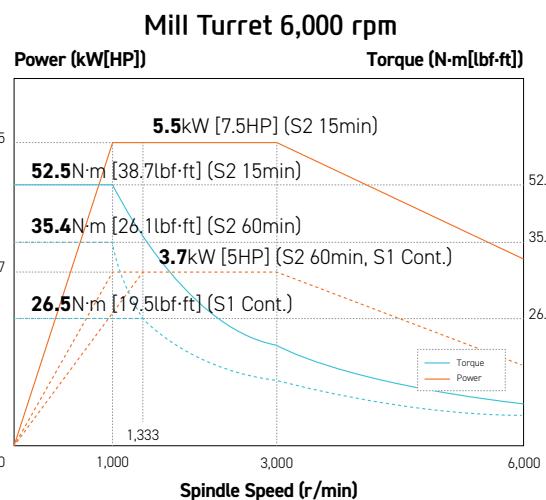
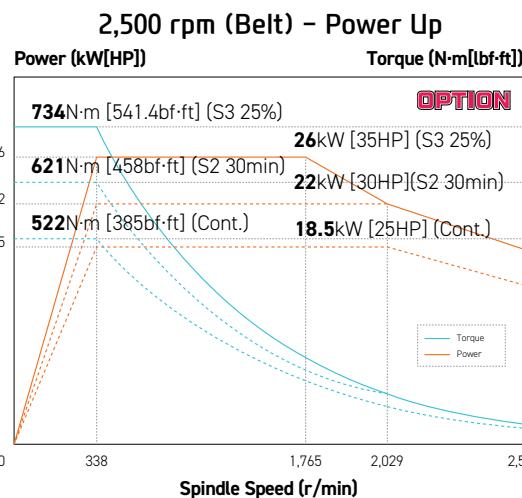
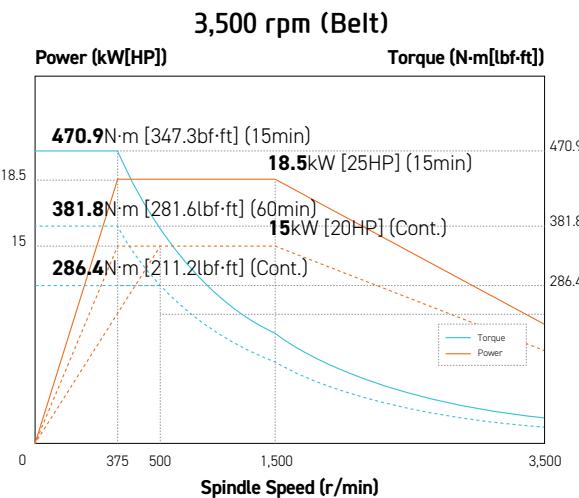
	SE2600	SE2600M
<b>Electric Device</b>		
Call Light	1Color : ●	●
Call Light & Buzzer	3Color : ● ● ● B	○
Electric Cabinet Light	○	○
Remote MPG	○	○
Work Counter	Digital	○
Total Counter	Digital	○
Tool Counter	Digital	○
	6ea	○
Multi Tool Counter	9ea	○
Electric Circuit Breaker	○	○
AVR (Auto Voltage Regulator)	☆	☆
Transformer	25kVA	○
<b>Measurement</b>		
<b>측정</b>		
Q-Setter	○	○
Automatic Q-Setter	○	○
Work Close Confirmation Device	TACO (Only for Special Chuck)	○
	SMC	○
Work Setter	☆	☆
Linear Scale	X axis Z axis	○
Coolant Level Sensor (Only for Chip Conveyor)	☆	☆
<b>Environment</b>		
Air Conditioner	○	○
Dehumidifier	○	○
Oil Mist Collector	☆	☆
Oil Skimmer (Only for Chip Conveyor)	○	○
MQL (Minimal Quantity Lubrication)	☆	☆
<b>Fixture &amp; Automation</b>		
Auto Door	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	○	○
Turret Work Pusher (For Automation)	☆	☆
Parts Conveyor (Required Main Parts Catcher)	○	○
Semi Automation System	☆	☆
<b>Hyd. Device</b>		
Standard Hyd. Cylinder	Hollow	●
Standard Hyd. Unit	35bar/20l (5.3gal)	●
<b>S/W</b>		
Automatic CAM (HW-ACAM)	-	-
Dialogue Program (HW-DPRO)	○	○
DNC software (HW-eDNC)	○	○
Machine Monitoring System (HW-MMS Cloud)	☆	☆
Machine Monitoring System (Customer Installation : HW-MMS Edge)	☆	☆
SmartGuide-i : FANUC	●	●
Smart S/W	☆	☆

◆ 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

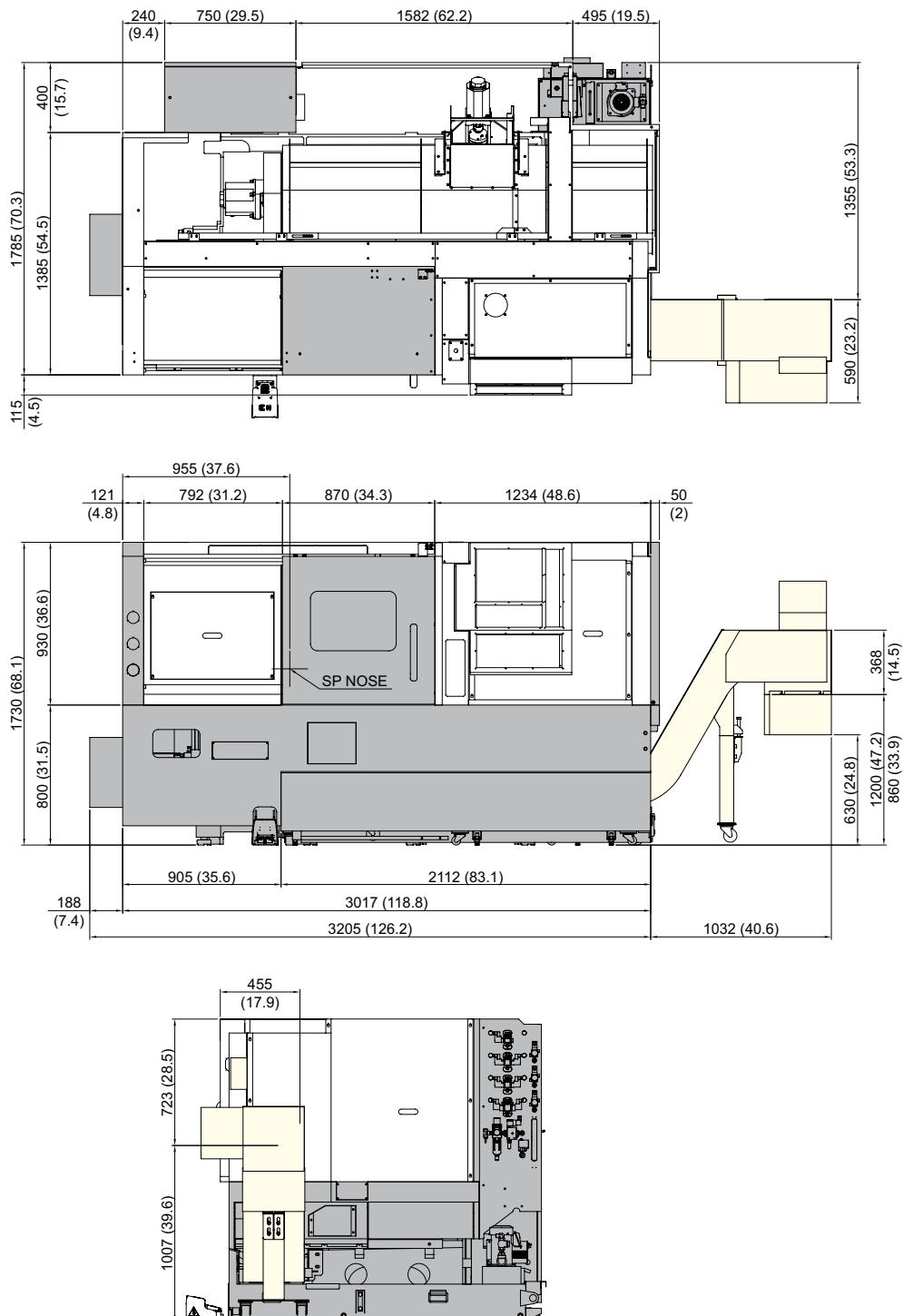
## Spindle Output/Torque Diagram



# SPECIFICATIONS

## External Dimensions

unit : mm(in)

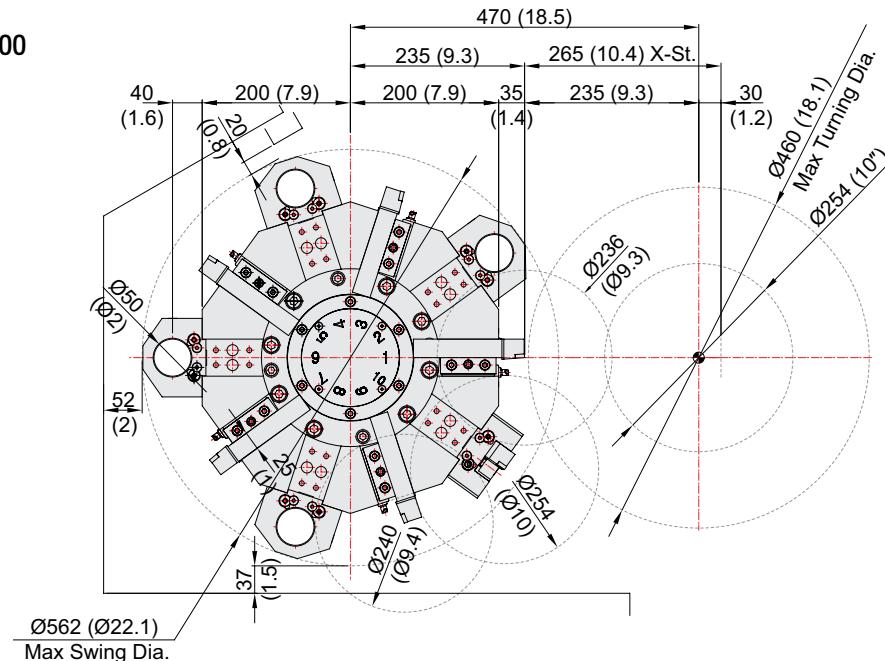


# SPECIFICATIONS

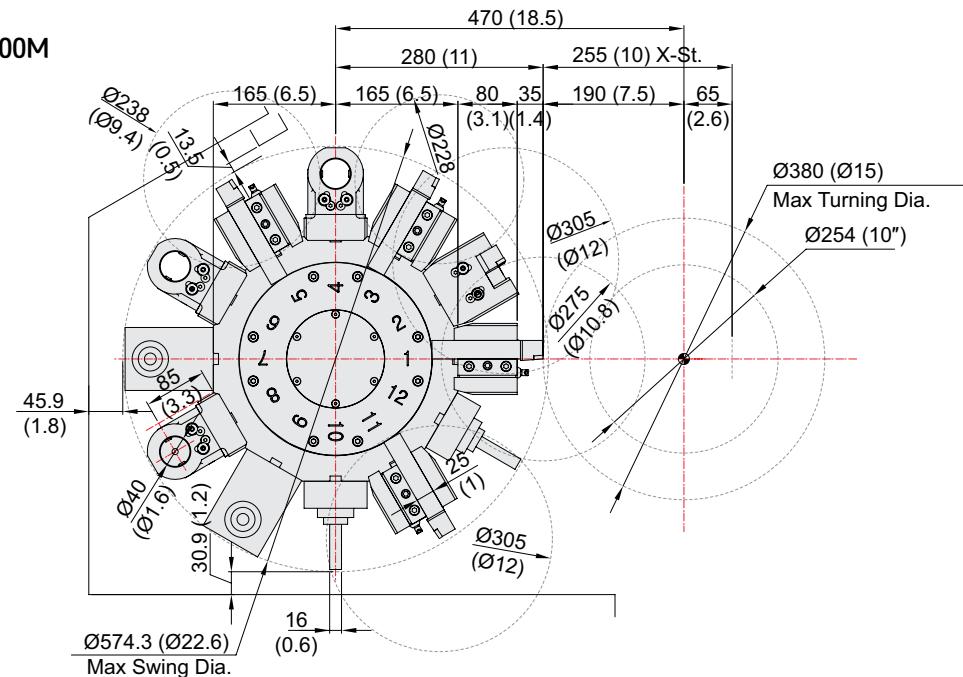
## Interference

unit : mm(in)

**SE2600**



**SE2600M**

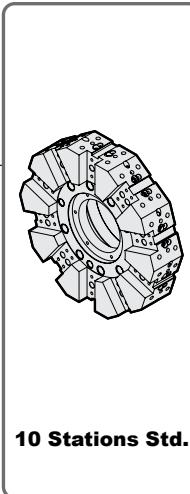
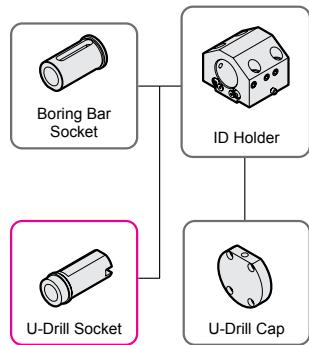


# SPECIFICATIONS

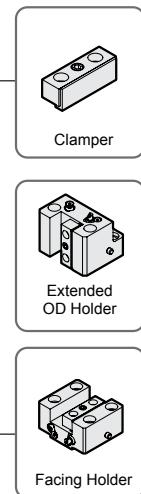
## Tooling System

unit : mm(in)

### Option



**10 Stations Std.**



Clamper

Extended  
OD Holder

Facing Holder

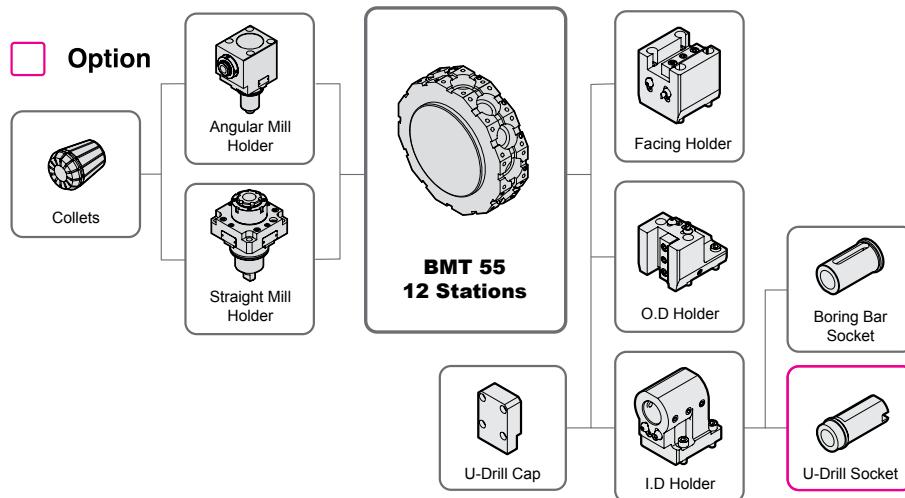
## Tooling Parts Detail

ITEM		SE2600	
		mm Unit	inch Unit
Turning Holder	Clamper	5	5
	O.D Holder	Opt.	Opt.
	Facing Holder	1	1
Boring Holder	I.D Holder	4	4
	U-Drill	1	1
Driven Holder	Straight Mill Holder	-	-
	TTC	-	-
	Angular Mill Holder	-	-
	TTC	-	-
Socket	Boring	Ø12 (Ø1/2")	1
		Ø16 (Ø5/8")	1
		Ø20 (Ø3/4")	1
		Ø25 (Ø1")	1
		Ø32 (Ø1 1/4")	1
		Ø40 (Ø1 1/2")	1
	Drill	MT 1 x MT 2	Opt.
		MT 2	Opt.
		MT 3	Opt.
		MT 4	Opt.
	ER Collet	-	-

# SPECIFICATIONS

## Tooling System

unit : mm(in)



## Tooling Parts Detail

ITEM		SE2600M		
		mm 단위	inch 단위	
Turning Holder	O.D Holder	Right/Left	4	4
		Extention	-	-
Facing Holder			1	1
Boring Holder	I.D Holder	Single	3	3
	U-Drill	Cap	1	1
Driven Holder	Straight Mill Holder	Standard	2	2
		TTC	-	-
	Angular Mill Holder	Standard	2	2
		TTC	-	-
Socket	Boring	Ø10 (Ø3/8")	1	1
		Ø12 (Ø1/2")	1	1
		Ø16 (Ø5/8")	1	1
		Ø20 (Ø3/4")	1	1
		Ø25 (Ø1")	1	1
		Ø32 (Ø1 1/4")	1	1
		Ø40 (Ø1 1/2")	-	-
	Drill	MT 1 x MT 2	Opt.	Opt.
		MT 2	Opt.	Opt.
		MT 3	Opt.	Opt.
		MT 4	-	-
	ER Collet		1 Set	1 Set
	Adapter Set		Opt.	Opt.

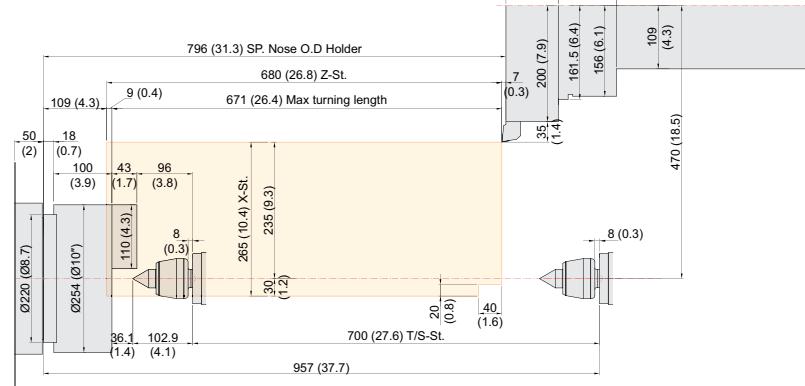
Specifications are subject to change without notice for improvement.

# SPECIFICATIONS

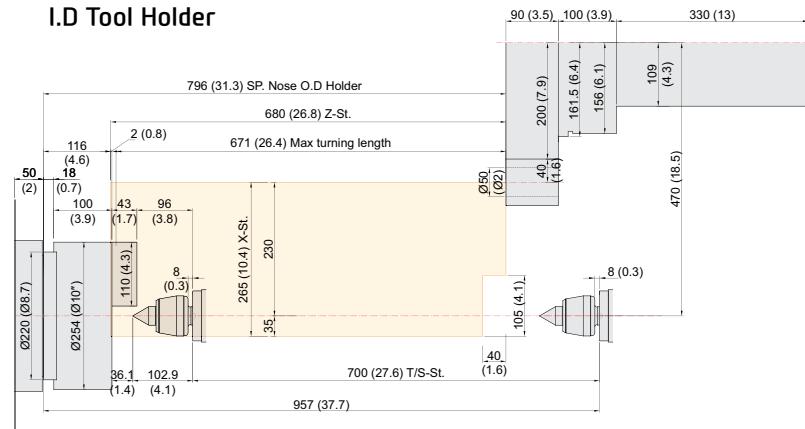
## Tooling Travel Range

unit : mm(in)

O.D Tool Holder



## I.D Tool Holder

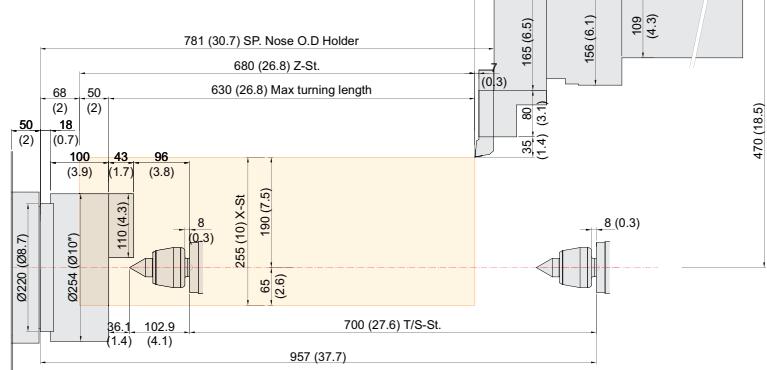


# SPECIFICATIONS

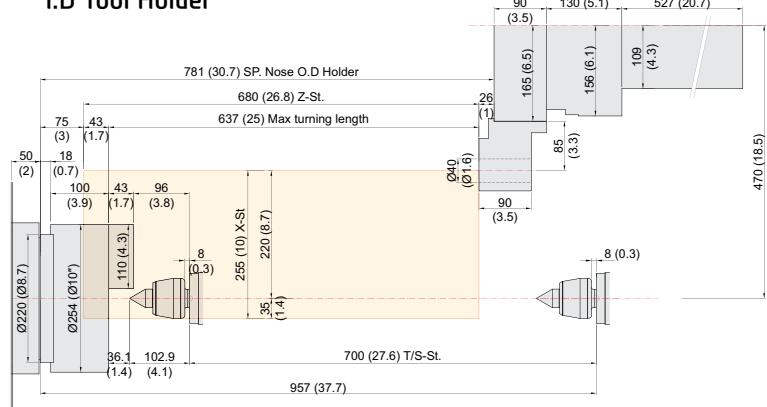
## Tooling Travel Range

unit : mm(in)

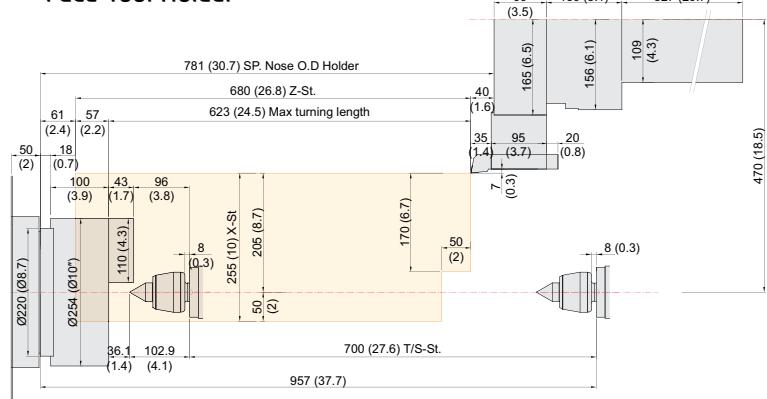
### O.D Tool Holder



### I.D Tool Holder



### Face Tool Holder

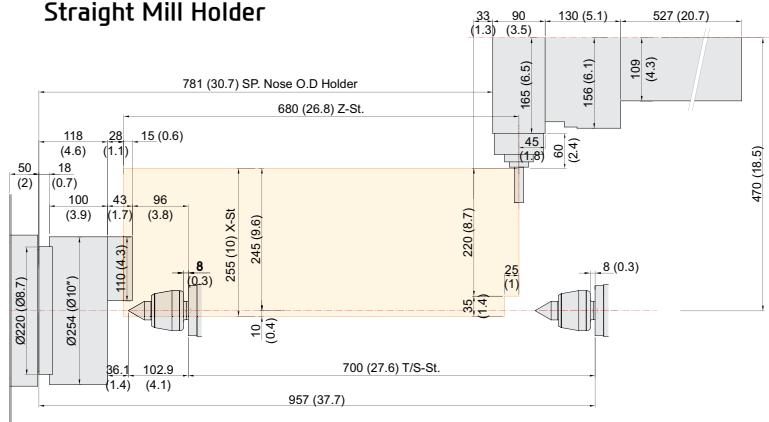


# SPECIFICATIONS

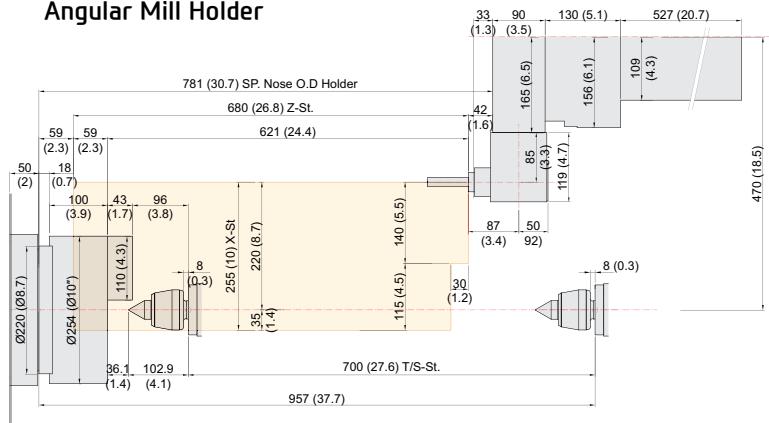
## Tooling Travel Range

unit : mm(in)

### Straight Mill Holder



### Angular Mill Holder



# SPECIFICATIONS

## Specifications

[ ] : Option

MODEL		SE2600	SE2600M
CAPACITY	Swing Over the Bed	mm(in)	Ø600 (Ø23.6")
	Swing Over the Carriage	mm(in)	Ø460 (18.1")
	Max. Turning Dia.	mm(in)	Ø460 (18.1")
	Max. Turning Length	mm(in)	660 (26")
	Bar Capacity	mm(in)	Ø81 (3.2")
SPINDLE	Chuck Size	inch	10"
	Spindle Bore	mm(in)	Ø91 (3.6")
	Spindle Speed (rpm)	r/min	3,500 [2,500]
	Motor (Max/Cont.)	kW(HP)	18.5/11 (25/15) [26/18.5 (35/25)]
	Torque (Max/Cont.)	N·m (lbft)	470.9/286.4 (347.3/211.2) [734/522 (541.4/385)]
	Spindle Type	-	BELT
	Spindle Nose	-	A2-8
FEED	C-axis Indexing	deg	0.001°
	Travel (X/Z)	mm(in)	265/680 (10.1"/26.8")
	Rapid Traverse Rate (X/Z)	m/min (ipm)	30/30 (1,181/1,181)
	Slide Type	-	ROLLER LM GUIDE
TURRET	No. of Tools	ea	10 [12]
	Tool Size	OD mm(in)	Ø25 (Ø1")
		ID mm(in)	Ø50 (Ø2")
	Indexing Time	sec	0.15
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-
	Milling Tool Speed (rpm)	r/min	-
	Torque (Max/Cont.)	N·m (lbft)	-
	Collet Size	mm(in)	Ø16 (0.6") : ER25
	Type	-	BMT55
TAIL STOCK	Taper	-	MT#4
	Quill Dia.	mm(in)	Ø56 (Ø2.2")
	Quill Travel	mm(in)	-
	Travel	mm(in)	700 (Ø27.6")
TANK CAPACITY	Coolant Tank	ℓ(gal)	200 (52.8)
	Lubricating Tank	ℓ(gal)	0.7 (0.18)
POWER SUPPLY	Electric Power Supply	kVA	18
	Thickness of Power Cable	mm <sup>2</sup>	Over 16
	Voltage	V/Hz	220/60 (200/50*)
	Floor Space (L×W)	mm(in)	3,255×1,900 (128.1"×74.8")
MACHINE	Height	mm(in)	1,730 (68.1")
	Weight	kg(lb)	4,200 (9,259)
NC	Controller	-	HYUNDAI WIA FANUC i Series - Smart Plus

Specifications are subject to change without notice for improvement.

# CONTROLLER

## HYUNDAI WIA FANUC - SMART PLUS

		[ ] : Option
<b>Controlled axis / Display / Accuracy Compensation</b>		
Control axes	2 axes (X, Z) / 3 axes (X, Z, C) / 4 axes (X,Z,Y,C) 5 axes (X, Z, B, C, A) / 6 axes (X, Z, Y, B, C, A) 7 axes (X1/Z1, X2/Z2, B2, C1/C2)	
Simultaneously controlled axes	2 axes [Max. 4 axes]	
Designation of spindle axes	3 axes [Max. 4 axes]	
Least setting Unit	X, Z, Y, B axes : 0.001 mm (0.0001 inch) C, A axes : 0.001 deg	
Least input increment	X, Z, Y, B axes : 0.001 mm (0.0001 inch) C, A axes : 0.001 deg	
Inch / Metric conversion	G20 / G21	
High response vector control		
Interlock	All axes / Each axis	
Machine lock	All axes	
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		
<b>Operation</b>		
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	
<b>Interpolation functions</b>		
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		
<b>Feed function / Acc. &amp; Dec. control</b>		
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	
<b>Program input</b>		
Tape Code	EIA / ISO	
Optional block skip	9 ea	
Program stop / end	M00, M01 / M02, M30	
Maximum command unit	± 999,999.999 mm (± 99,999.999 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	G41	
Direct drawing dimension program	Including Chamfering / Corner R	
Conversational Program	SmartGuide-i	
<b>Program input</b>		
Multiple repetitive cycles I , II		
Canned cycle for turning		
<b>Auxiliary function / Spindle speed function</b>		
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	
<b>Tool function / Tool compensation</b>		
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		
<b>Editing function</b>		
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		
<b>Data input / output &amp; Interface</b>		
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		
<b>Setting, display and diagnosis</b>		
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)	
<b>Function for machine type</b>		
Cs contour control (C & A axes)	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	
<b>Option</b>		
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.

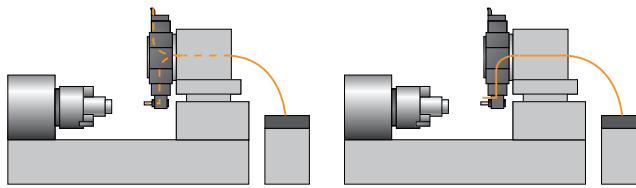
The FANUC controller specifications are subject to change based on the policy of company CNC supplying.

# HYUNDAI WIA ECO SYSTEM

## MQL (Minimal Quantity Lubrication)

The goal of this system is to spray only the amount of lubricant required to prevent heat and chip build up at the cutting tool or work piece face.

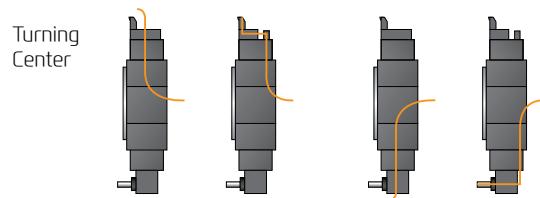
Example of Turning Center Application



Center Type

External Type

Example of Etc.



Turning

Drilling

Tapping



Oil Skimmer



Mist Collector



Lubrication System

An oil skimmer can increase coolant and tool life by removing tramp oil contaminants.

Mist Collector reduces the amount of smoke and oil mist in the air. This helps build a safe and comfortable working environment and improve durability.

By applying lubricant only when the machines axis are moving lubrication consumption is reduced by compared to standard systems.

# HYUNDAI WIA ENERGY SAVING

## HW-ESS (HYUNDAI WIA Energy Saving System)

HYUNDAI WIA Machine tool provides the optimum power saving function that can easily save energy with an intuitive user interface.



1. **Machine-ready power saving function** : Put all servo motors and other motors into sleep mode when no control or operation is done for a set time
2. **Work light auto-off function** : The work light is turned off automatically when no control or operation is done for a set time
3. **Chip conveyor auto power saving** : Operation/non operation time (timer) can be set to save energy
4. **Auto Power-off** : Auto power off after ending the an operation after a period of time
5. **Eco function** : Machine ready sleep mode can be activated/de-activated from the controller panel
6. **Power consumption monitor** : Real time power consumption can be monitored through the OP screen



## EXPERIENCE THE NEW TECHNOLOGY

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

You Tube HYUNDAI WIA MT  
[www.youtube.com/HYUNDAIWIAWT](http://www.youtube.com/HYUNDAIWIAWT)



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

### HEADQUARTER

Changwon Technical Center/R&D Center/Factory 153, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea TEL : +82 55 280 9114 FAX : +82 55 282 9114

Overseas Sales Team /R&D Center 37, Cheoldobangmulgwan-ro,Uiwang-si, Gyeonggi-do, Korea TEL : +82 31 8090 2539

### OVERSEAS OFFICES

HYUNDAI WIA Machine America corp. 450 Commerce Blvd, Carlstadt, NJ 07072, USA TEL : +1-201-987-7298

HYUNDAI WIA Europe GmbH Alexander-Fleming-Ring 57, 65428 Rüsselsheim Germany TEL : +49-0-6142-9256-0

HYUNDAI WIA Machine Tools China 2-3F, Bldg6, No.1535 Hongmei Road, Xuhui District, Shanghai, China TEL : +86-21-6427-9885

India Branch Office #4/169, 1st Floor, LOTTE BLDG, Rajiv Gandhi Salai, (OMR), Kandanchavadi, Chennai - 600096, Tamilnadu, India TEL : +91-76-0490-3348

Vietnam Branch Office Flat number 05, Service and Trade Center of Viet Huong Industrial Zone, Highway 13, Thuan Giao, Thuan An, Binh Duong, Vietnam TEL : +84-3-5399-5099