The technology of HYUNDAI WIA in everyday live.

Always by Your Side

HYUNDAI WIA exists, not in a special moment of your life, but in your normal everyday life in places that can’t be seen. Like water and air, which exists everywhere but is essential to life, the core technology of HYUNDAI WIA lies inside the products you use in your everyday life.

HYUNDAI WIA, the leader of general machinery industry. Playing a key role in supporting our industries!
HYUNDAI WIA MACHINE TOOL
THE 17TH SEOUL INTERNATIONAL MANUFACTURING TECHNOLOGY SHOW

CNC Turning Center
- Gang Type: KIT4500
- Standard Type: HD2200
- Multitasking: LM1800TT5S | KM2600MTTS
- Y-Axis: L2400SY | L2600SY | KL7000LY
- Heavy Duty Cutting: L500LMA | L800D
- Vertical Turning Center: LV450G | LV900AW-TT
- RAM Type: LV2000MM
- Front Loading Turning Center: LF2600/2SP

Vertical Machining Center
- Mod: HI-MOLD6500 | F660M
- 5-Axis: XF6300 | HI-MOLD750/5A
- Tapping Center: i-CUT Series
- Standard Type: KF5600 | F650 PLUS

Horizontal Machining Center
- High Speed: HS4000M | XH6300
- Heavy Duty Cutting: XH8000

FA Line Center
- WH50C | WH50TS | WH60T

SIMTOS 2016
April 13 – 17, KINTEX

HYUNDAI WIA Booth No.
Hall 1 / A350
Amazing Crystallizations From Precision Machine Technology

HYUNDAI WIA held its place in the machine tools manufacturing sector since the early days of its management, especially to cope with the arrival of the age of unattended plant operation. HYUNDAI WIA machine tools are endless efforts made around the whole process of production and distribution, covering from self-reliant designs to manufacturing and after service. HYUNDAI WIA’s products are well distributed not only in the domestic market but also overseas with a worldwide network of over 80 dealerships.

The products faithfully reflect the conviction of HYUNDAI WIA’s dreams of an earlier realization of factory automation through harmony between human and machines.
SIMTOS Line-UP

KIT4500 - Gang Type CNC Turning Center
HD2200 - Standard CNC Turning Center
LV450G - Gang Type Vertical Turning Center
L2100SY - Y Axis CNC Turning Center
L2600SY - Y Axis CNC Turning Center
KL7000LY - Heavy Duty Cutting, Y Axis CNC Turning Center
L500LMA - Heavy Duty Cutting, CNC Turning Center
L800D - Large Working Area, CNC Turning Center
LV800AW-TT - 2 Turret, AL Wheel Turning Center
LM1800TTSY - Multitasking CNC Turning Center
KM2600MTTS - 9 Axis Multitasking Machine
LV2000MM - RAM Type Vertical Turning Center
i-CUT Series
- Tapping Center

KF5600
- Next Generation Vertical Machining Center

F650 PLUS | F660M
- Next Generation Vertical Machining Center

Hi-MOLD6500
- Vertical Machining Center for Mold Machining

Hi-MOLD750/5A
- 5 Axis Vertical Machining Center

XF6300
- High Speed 5 Axis Vertical Machining Center

HS4000M
- High Speed Horizontal Machining Center

XH6300
- High Speed Horizontal Machining Center

XH8000
- Heavy Duty Cutting, Horizontal Machining Center

WH50TS
- Transmission Machining, Line Center

WH50C
- Engine Machining, Line Center

WH60T
- Transmission Machining, Line Center
HYUNDAI WIA
2016 NEW BRAND & MACHINE TOOLS

Since 2014, HYUNDAI WIA machine tools established a new research center in Germany. By efforts of our top researchers, we have developed a new brand of machines. We are proud to present to you our new models XF and XH.

In addition, our new models XF, KL and KM promise your success in business with the best performance, brought to you by the combination of HYUNDAI WIA'S unique know-how and European design technology.

**KF5600** (Next Generation VMC)
- Table size (L×W) : 1250×560 mm (49.2”×22”)
- Spindle Speed : 8K [8K/12K/15K/20K] rpm
- Travel (X/Y/Z) : 1,100/560/520 mm 43.3"/22"/20.5"

**XH6300** (High-Speed HMC)
- Pallet Size (L×W×H) : 2-630×630 mm (24.8”×24.8”)
- Spindle Speed : 10,000 [8,000] [16,000] rpm
- Travel (X/Y/Z) : 1,050/900/1,000 mm 41.3”/35.4”/39.4”

**XH8000** (Heavy Duty Cutting HMC)
- Pallet Size (L×W×H) : 2-800×800 mm (31.5”×31.5”)
- Spindle Speed : 8,000 [10,000] rpm
- Travel (X/Y/Z) : 1,400/1,100/1,370 mm 55.1”/43.3”/53.9”

**XF6300**
Cutting Edge Technology, High Speed 5-Axis Vertical Machining Center
- Table size (L×W×H) : Ø630×400 mm (Ø24.8”×15.7”)
- Spindle Speed : 15,000 [24,000] [40,000] rpm
- Travel (X/Y/Z) : 650/600/500 mm 25.6”/23.6”/19.7”
KL7000LY (Heavy Duty, Y-Axis Cutting Lathe)
- Chuck Size: 24"
- Spindle Speed: 1,500 rpm
- Travel (X/Y/Z): 500/220±110/3,280 mm
(19.7"/7.9"±4.3"/129")

KM2600MTTS (9-Axis Multitasking Machine)
- Chuck Size (Main/Sub): 10"
- Spindle Speed (Main/Sub): 4,000 rpm
- No of Tools: 36 (72) ea
XF6300

5-axis vertical machining center in the world-best level, developed by HYUNDAI WIA Europe R&D Center. XF6300 is equipment to realize the best performance in composite machining and mold machining in high quality due to its cutting-edge design such as the unified column bed structure, X/Z axis box-in-box structure, etc.

### Specifications

<table>
<thead>
<tr>
<th>Table Size (LxW)</th>
<th>mm(in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ø630×400 (Ø24.8″×15.7″)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Max. Load Capacity</th>
<th>kg(lb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>600 (1,323)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sp. Taper</th>
<th>HSK-A63</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Sp. Speed</th>
<th>r/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>15,000 [24,000] [40,000]</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sp. Power</th>
<th>kW(HP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>33/25 (44/33.5)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No. of Tools</th>
<th>EA</th>
</tr>
</thead>
<tbody>
<tr>
<td>34 (68, 102)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toolpost (X/Y/Z)</th>
<th>mm/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>650/600/500 (25.6″/23.6″/19.7″)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rapid Travel</th>
<th>m/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>50/50/50 [60/60/60]</td>
<td></td>
</tr>
</tbody>
</table>

| ( ) : Option ● : SIEMENS |
Main Features

High-Precision Spindle

Built-In Spindle

The spindle is designed with built-in structure. This helps reduce vibration and heat and shows fast acc/deceleration for high precision machining.

Spindle Cooling

Spindle temperature is controlled by the use of a spindle oil chiller. This ensures constant spindle temperature and minimizes thermal deformation.

HSK Tool Holder

HSK tool holder is applied for precise positioning with less expansion on spindle taper during high speed rotation. This ensures excellent level of precision for mold machining.

Magazine & Table

Direct Drive Motor (DDM) Tilting Rotary Table

XF6300 applies DDM Tilting rotary Table. The direct drive method provides superb productivity and high quality. Compared to the previous gear drive method, it has improved both accuracy and speed. (Option : Gear Type)

Table Size : Ø630 (Ø24.8")
Max. Load Capacity : 300 kg (661 lb) (DDM)
(600 kg (1,323 lb) (GEAR))

Magazine & ATC

Tool change time (chip-to-chip) of 4.5 seconds is best in its class. Tool change mechanism has improved by applying the ring-type ATC. 1-step magazine of 34 tools is provided as standard. 2-step magazine of 68 tools and 3-step magazine of 102 tools can be selected as an option.

No. of Tools : 34 [68, 102] EA
Max. Tool Dia. : Ø90 (Ø3.5")
Max. Tool Length : 300 mm (11.8")
Tool Change Time (C-C) : 4.5 sec
Main Features

High Rigidity Flat Bed Structure
KL7000LY is designed through the unique structure analysis only by HYUNDAI WIA in the flat bed structure unlike the existing slant bed, resulting in improvements in strong and heavy cutting capability.

3 Step Gear Main Spindle
- To accomplish stability even during heavy duty cutting, the spindle is designed with a combination of P4 level double cylindrical roller bearings and angular bearings.
- The spindle and the headstock are designed to maintain long time high accuracy.
  - Spindle Speed: 1,500 rpm
  - Spindle Power: 45 kW (60.3 HP)
  - Spindle Torque: 6,928 Nm (5,110 lbf・ft)

C-Axis Control
KL7000LY where milling is possible, provide C-axis control of 0.001°. This enables various types of machining.

MT#6 Built-In Tail Stock
The built-in type tailstock ensures high accuracy even during heavy duty cutting. It can be controlled manually or automatically by program.

Box Guideway
For all the axes of KL7000LY, box guideways are applied to provide unsurpassed long term rigidity and accuracy, even during heavy duty cutting.
  - Rapid Traverse Rate (X/Z/ZB): 12/10/12 m/min (472/394/472 ipm)
  - Travel (X/Z/ZB): 500/220/3,280 mm (19.7”/7.9”/129”)

Wedge Type Y-axis Structure
The wedge type Y-axis offers superior positional accuracy and is easy to program, which ensures increased productivity.
  - Y Axis Rapid Traverse Rate: 12 m/min (472"
  - Y Axis Travel: 100 (±50) mm (3.9” (±1.9”)

Mill Turret (BMT 85P)
Enlarged BMT85P turret enables the KL7000LY to perform high accuracy milling operations in a single set-up. The BMT turret is driven by a high torque servo motor with a 0.3 Wedge Type Y-axis Structure second indexing time in either direction.
KM2600MTTS
9-Axis Multitasking Machine

Main Features

**Built-In 10” Main & Sub Spindle**
- The built-in main and sub spindle in high precision is designed in a structure where the spindle head is separated from the base to minimize thermal displacement during machining.
  - Spindle Speed: 4,000 rpm
  - Bar Capacity: Ø80 (3.1”)

**Cross Type Y-axis**
- The cross type Y-axis ensures the excellent positioning precision with the simple preparation and correction of program, which will give you a great help in increasing productivity.
  - Max. Turning Dia.: Ø750 (29.5”) (B 140°), Ø630:24.8” (B 90°)
  - Max. Turning Length: 1,550 mm (61”)
  - Rapid Traverse Rate (X1/Z1/Y/X2/Z2/ZB):
    - 40/40/40/30/40/30 m/min (1,574/1,574/1,574/1,181/1,574/1,181)
  - Travel (X1/Z1/Y/X2/Z2/ZB):
    - 705/1,595/250/250/1,500/1,586 mm (29.5”/62.8”/9.8”/9.8”/59”/62.4”)

**BMT Lower Turret**
- The lower turret adopts 2 servo motors in good performance to ensure high durability and precision. Especially, the lower turret ensures the high-speed machining of complicated shapes in precision only with the one-time setting of an object to be machined with the mill head and complex machining.
  - Tool Size (O.D/I.D):
    - □25/Ø40 ( □1”/Ø1.6”)

**ATC & Magazine**
- The installation of magazine on the front provides the efficient tool exchange and tool setting. Magazine with chain driving method provides 36 tools as a standard, and 72 tools as an option.
  - No. of Tools: 36 [72] EA

**Mill Head**
- The mill head of KM2600MTTS, where the b axis control can be done, is mounted with a high-resolution encoder having a DD (direct drive) motor and 0.0001° to secure high positioning precision. This shows highest machining performance among the same class.

**CAPTO-C6**
- Maximized cutting ability by applying double side circulation possible CAPTO-C6 as a standard.
  - Speed: 12,000 rpm
  - Driven Type: DD Motor
  - Indexing Angle: 0.0001°
Main Features

6" Main Spindle
The high precision spindle is designed with angular contact ball bearings. The bearings minimize thermal displacement even at high speeds.

60° Slant Spindle
The spindle of KIT4500 is the 60° slant bed in the same angle as the gang table for the spindle attaching surface to minimize the machining tolerance due to thermal displacement.

V-Ribbed Belt

60° Slant Bed Structure
Chip processing is excellent by applying the bed in 60° slant with increased convenience due to easy access to the chuck during the tool setting.

Stepless X-axis Slide Cover
Durability is increased without damage from chip jamming by changing the X-axis slide cover from the existing 5 step slide cover to the continuous slide cover.

Travel (X/Z axis): 450/300 mm (17.7”/11.8”)

All Axes LM Guide
All axes of KIT4500 is designed with LM Guides. It reduces machining noise and enhances productivity through faster traverse rate.

Rapid Traverse Rate (X/Z): 30/36 m/min (1,181/1,417 ipm)

Block Tool
Reduced Tool Change Time
Productivity is increased by shortening the non-machining time through applying the gang type block tool where no tool exchange is required.

◉ No. of Tool: 6 EA
◉ Table Size: 550×200 mm (21.7”×7.9”)
◉ Tool Size (O.D./I.D.): □20/Ø32 mm (□0.8”/Ø1.3”)
**Main Features**

**Built-In Spindle**
By using ultra precision class of angular ball bearings, fast acc/deceleration of the main spindle is achieved. The spindle head is designed to minimize heat displacement therefore reducing heat generation and making it possible to maintain high accuracy.

**Direct Spindle**
Direct coupling of the motor and the spindle reduces deceleration time, and provides easy maintenance.

**Optimal Structural Analysis**
KF5600 is designed to have optimal structure through Hyundai WIA’s unique structural analysis. Also, column has become more rigid even weight is lighter than the previous model.
- Z Axis – Previous Machine Compared to 29% Rigidity UP

**Roller Type LM Guide (Weight 130% increase)**
In order to implement fast feed rate and high rigidity, Roller Bearing LM Guideway was chosen over the conventional Ball Bearing LM Guideway, resulting in at the same time reinforcing maximum load capacity.
- Rapid Traverse Rate (X/Y/Z): 40/40/36 m/min (1,575/1,575/1,4176 ipm)
- 15K Built-in [48/48/48] m/min (1,890/1,890/1,890 ipm)

**Expanded Y-axis Design**
The travel on Y-axis is designed to be 560mm (22") allowing enhanced processing.

**Nut Cooling Ball Screw OPTION**
Nut cooling ball screws on all axes(KF5600) decrease thermal displacement which enhances precision machining ability.

**Servo ATC**
Position control of the Twin Arm ATC using Servo Motors has been improved drastically. Also the tool changing speed has been improved, leading to the reduction of non-cutting time.
- No. of Tools: 30 [40] EA
- Tool Change Time (C-C): 3.2 sec
XH6300
High Speed Horizontal Machining Center

Main Features

Optimized Structural Analysis
Through HYUNDAI WIA’s unique structural analysis, these horizontal machining centers are optimally designed for increased rigidity while reducing heat displacement and machine vibration.

Step Type Bed Structure
The column feed of the bed is designed in the step type to minimize load from the front during the product machining. In addition, the column weight is optimized to increase feed stability.

High-Speed Roller Guideway
XH6300 applies large linear roller guideways to reduce non-cutting time and bring high rigidity.

◉ Improved Cutting Capacity

- Previous Machine: 600 cc/min
- XH6300: 1,370 cc/min
- 230% UP

Built-in Spindle
The built-in main spindle minimizes vibration and heat during high speed rotation and achieves fast acceleration/deceleration.

- Tool Shank: BBT50 [HSK-A100]
- Tool Changing Time
  - T-T: 2.1 sec
  - C-C: 4.2 sec

APC & Pallet
XH6300 provides a lift rotary type APC (automatic pallet changer) as standard. The loading station pallet can be rotated and locked in 90° increments for convenient loading/unloading of workpieces.

◉ APC Changing Time: 9.8 sec

ATC & Magazine
The ring type tool magazine holds 40 tools as standard and up to max. 340 tools as an option depending on the model. Servo control, fixed address tool selection method and a separate magazine control panel enhance user convenience. The twin arm ATC provides fast and reliable tool change to reduce noncutting time.

◉ APC Changing Time
  - T-T: 7.5 sec
  - C-C: 4.2 sec
  - 3.3 sec Reduction
**Main Features**

### Step Type Bed Structure
The column feed of the bed is designed in the step type to minimize load from the front during the product machining. In addition, the column weight is optimized to increase feed stability.

### High-Speed Roller Guideway
XH6300 applies large linear roller guideways to reduce non-cutting time and bring high rigidity.

### Standard Gear Type Spindle
The gear type spindle provides powerful torque at low speeds and stable rotation at high speeds and this enables wide range of machining.

### APC & Pallet
XH8000 provides a lift rotary type APC (automatic pallet changer) as standard. The loading station pallet can be rotated and locked in 90° increments for convenient loading/unloading of workpieces.

### ATC & Magazine
The tool magazine holds 40 tools as standard and up to 60 tools as an option depending on the model. Servo control, fixed address tool selection method and a separate magazine control panel enhance user convenience.

#### Tool Shank
- **BBT50 [HSK-A100]**

#### Tool Changing Time
- **(T-T) : 2.0 sec**
- **(C-C) : 6.0 sec**

#### APC Changing Time Shorten
- Previous Machine: 19 sec
- XH8000: 16 sec
  - 3 sec Reduction

#### Nut Cooling Ball Screw
Nut cooling ball screws on all axes (XH6300) decrease thermal displacement which enhances precision machining ability.

#### Rapid Traverse Rate
- **(X/Y/Z) : 50/50/50 m/min (1,969/1,969/1,969 ipm)**

#### Travel
- **(X/Y/Z) : 1,400/1,100/1,370 mm (55.1”/43.3”/53.9”)**

#### CAPACITY
- **Ø1,450 (Ø57”)**
- **2,000 kg (4,409 lb)**
- **1,500 mm (61”)**
High Production, Multitasking CNC Turning Center

**Confidence**

**Belief to Handle Any Tasks By Oneself**

A national best machine tool brand, HYUNDAI WIA turning center is excellent in both quality and capability. To fulfill our customers need, we have prepared various line-up, highly accurate main spindle and machine design that never admit 1 second time error.

"HYUNDAI WIA CNC Turning Center" is the word that we can nominate to our global customers proudly.
LM1800TTSY
Multitasking CNC Turning Center

Main Features

Hybrid Slideway
An optimal combination of Linear Guideways for Z axis, and Box Guideways for X and Y. Offers the best of both worlds. The Z axis move quickly to reduce non-cutting time, while the box guideways in Z and Y add rigidity for heavy-duty cuts.

Y-Axis Structure
Y-axis controlled BMT55P turret, enables a combination of metal removal operations, by one machine, in a single set-up. The wedge type Y-axis offers a compact, space-saving design with superior positional accuracy and is easy to program.
- Y Axis Rapid Traverse Rate: 7.5 m/min (295.3 ipm)
- Y Axis Feed Travel: 100 (±50) mm (3.9")

Built-in Main & Sub Spindle
The LM1800TTSY features a built-in main spindle, which reduces noise and vibration even at high speeds or when taking heavy-duty cuts, improving precision and surface finish. Also, sub-spindle is increased flexibility and productivity with the ability to perform secondary machine operations in a single set-up.
- Spindle Speed: 5,000 rpm
- Spindle Power (Max./Cont.): 22/11 kW (29.5/14.8 HP)

Mill Turret (BMT65P)
Twin 12-station BMT turrets (Opt. 24) stationed in upper and lower positions, for a total of 24 tools (Opt 48), enable the LM1800TTSY multitasking machines to perform high accuracy milling operations in a single set-up. The BMT turret is driven by a high torque servo motor which can index in either direction.

Mill Tool Holder
Machining capabilities have been increased with the addition of a Straight Milling Head, which can remove material from the side of the workpiece, and an Angular Milling Head, which can perform I.D. operations.
HD2200
Standard CNC Turning Center

Main Features

Main Spindle
Heat produced by the main spindle is blocked by applying a symmetric one-piece base and an insulation plate. This enables maintenance of high accuracy even during a long period of machining.
- Spindle Speed: 4,000 rpm
- Spindle Power (Max./Cont.): 18.5/15 kW (24.8/20 HP)
- Spindle Torque: 206 N・m (152 lbf・ft)

Tail Stock
Tailstock enables stable machining of high quality products where quill travels up to 80mm (3").

Guideway
All axes of HD2200 are designed with Box Guideways for better travel ability. Box Guideways show great performance in offsetting vibrations caused by heavy duty cutting.

Sealed GIB Structure
X-axis of HD2200 is designed to minimize the damage of turcite from chips by applying the sealed GIB structure.

Z-Axis High Performance Motor
Z-axis feed ability is improved by installing high performance servo motor.
- Rapid Traverse Rate (X/Z): 24/30 m/min (945/1,181 ipm)
- Travel (X/Z): 215/580 mm (8.3”/22.8”)

Turret
The turret is driven by a servo motor at a high speed indexing time of 0.12sec/step. Cycle time is reduced and productivity is improved.

High Pressure Coolant
The turret is designed to utilize 20 bar (290 psi) high pressure coolant and it shows optimum performance in machining difficult-to-cut material.
- No. of Tools: 12 EA
- Tool Size (OD/ID): 25/Ø40 (1”/1.6”)
- Indexing Time: 0.12 sec/step
LV450G
Gang Type Vertical Turning Center

Main Features

Roller Type LM Guideway
The LV450G is designed with roller LM guideways to meet the need for rigidity and fast feed rate. The rapid traverse rate of 24m/min (945 ipm) of all axes enhances productivity.

- Rapid Traverse Rate (X/Z) : 24/24 m/min (945/945 ipm)
- Travel (X/Z) : 500/495 mm (19.7”/19.5”)

Main Spindle
The highly rigid bearing structure of LV450G enables heavy duty cutting with excellent control of vibration and thermal displacement.

2 Step Pressure Chucking Device
The 2 step pressure chucking system enables high pressure chucking during roughing and low pressure chucking during finishing.

- Chuck Size : 12”
- Spindle Speed : 3,000 rpm
- Spindle Power (Max./Cont.) : 22/18.5 kW (29.5/24.8 HP)
- Spindle Torque (Max./Cont.) : 730/614 Nm (538.4/452.9 lbf-ft)

Gang Type Block Tool
By applying the gang type block tool, non-cutting time is reduced, resulting in greater productivity.

- No. of Tool : 3 EA
- Table Size : 580×255 mm (22.8”×10”)
- Tool Size (OD/ID) : □25×25/Ø50 mm ( □1”×1”/Ø2”)
L500LMA
Heavy-Duty Cutting, CNC Turning Center

Main Features

30° Slanted Bed
Designed with FEM (Finite Element Method) analysis, the L500 Series has bed structure of 30° slope to improve machining accuracy and cutting ability. In addition, increased bed installation area improves vibration absorption and machining stability.

X-Axis Guideway
Expanded guideways for high precision and enhanced heavy-duty cutting ability.

Box Guideway
All axes feature box guideways for unsurpassed long term rigidity and accuracy, even during heavy duty cutting.

Big Bore Spindle
Spindle bore of Ø181 (Ø5.9") shows superior ability in pipe machining. Furthermore, its torque of 2,990 N.m (2,205 lbf-ft) outperforms all others in the same class.

- Spindle Speed: 1,500 rpm
- Spindle Power (Max./Cont.): 45/37 kW (60/50 HP)

C-Axis Control
0.001° controllable C-axis and perfect combination of milling and turning process maximize machining capability.

MT#5 Built-In Tail Stock
The large MT#5 built-in tailstock ensures stabilized surface finish during heavy duty and powerful cutting. The tailstock can be controlled automatically or manually.

Mill Turret
The BMT turret, with 4 screws solidly fastening the holder, shows outstanding performance in powerful cutting and is capable of machining complex products by using milling tools.

BMT75P
- No. of Tools: 12 EA
- Tool Size (OD/ID):
  - 32/Ø63 (Ø1 1/4"/Ø2 1/2")
- Indexing Time: 0.35 sec/step
- Speed: 4,000 rpm
- Collet Size: Ø26 (Ø1") (ER40)
L800D
Large Working Area, CNC Turning Center

Main Features

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

Big Bore Spindle
Max. Spindle Bore (Ø375 (Ø14.7″) show excellent performance in machining large cylindrical parts for oil and gas industry.

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

- Spindle Speed : 500 rpm
- Spindle Power (Max./Cont. : 45/37 kW (60/50 HP)
- Spindle Torque : 7,288 Nm (5,375 lbf・ft)

High Precision, High Rigidity One-Piece Structure
The L800D 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.

Box Guideway
For all the axes of L800D, box guideways are applied to provide unsurpassed long term rigidity and accuracy, even during 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) : 500/1,680 mm (19.7″/66.1″)

MT#6 Built-In Tail Stock
The built-in type tailstock ensures high accuracy even during heavy duty cutting. It can be controlled manually or automatically by program.

Chuck Type Tail Stock
When machining material like pipe stable product-machining is possible with the use of chuck type tail stock.
- Chuck Size : 12″
- Speed : 3,000 rpm
- Bore : Ø95 (Ø3.7″)
Main Features

**LF2600/2SP**
Front Loading Turning Center

**Main Spindle**
The spindle has the highest speed and torque in its class, which provides high performance during high-speed/heavy duty cutting. Also, the spindle is designed with Ø110 (4.3") size P4 angular contact ball bearings to minimize thermal displacement and increase accuracy.

- Spindle Speed : 1,500 rpm
- Spindle Power : 45 kW (60 HP)
- Spindle Torque : 493 N·m (363.6 lbf·ft)

**High Precision Separated Bed Structure**
Separated bed design minimizes heat distortion and vibration to maintain stable cutting capacity. By collection disposed lubricant oil, it fosters pleasant work environment.

**Increased Guideway Span**
Increased guideway span allows for safety adjustable axis, making it easy to optimize feeds.

**X/Z Axis Guide Size**
Expanded X/Z-axis guideway width increases feed stability.

- 길이송속도 (X/Z) : 24/30 m/min (945/1181 ipm)
- Travel (X/Z) : 190/170 mm (7.5"/6.7")

**Gantry Loader System**
Composing flexible cell automation and optimized installing space by high speed gantry loader and work stockers flexibility. Outstanding cutting effect happens when continuously cutting both sides of work.
LV2000MM
Ram Type Vertical Turning Center

Main Features

Hardened Plate Box Guideway
Highly rigid hardened plate attached box guideway increases rigidity and reduces vibration. Also, linear scales on all axes provided as standard enable precise machining.
- Rigidity 10% UP compared to standard box guideway

3 Step Crossrail
3 step hydraulic cylinder crossrail (250mm (9.8") x3) enables minimization of vibration and load by extending the length of the ram depending on the machining area. This unique design allows high performance in heavy duty operations.

- Travel (X/Z):
  -250 ~ +1180/915 mm (-9.8" ~ +46.5"/36")
- Max. Turning Height: 1,700 mm (66.9")
- Max. Turning Dia.: Ø2,000 (78.7")

High Rigidity Table
2 step gear driven table provides excellent performance in all speed ranges, especially in low speed. The spindle is designed for maximum torque of 22,096 Nm (16,297 lbf ft), suitable for heavy duty machining.

C-Axis Control
Noise reduction and angle segmentation in high precision have been realized by applying C-axis control designs with the application of ring gear and ring sensor to the gear box.

Ram Head (BT40)
Various types of machining are possible with ram head; milling with rotary tool, turning, tapping, drilling, grinding and etc.
- Ram Head Travel (Z-axis): 915 mm (36")
- Ram Size: 240x240 mm (9.4" x 9.4")
- Torque: 769 Nm (567 lbf ft)

ATC Magazine
ATC is driven by a servo motor which provides faster tool change time and easier maintenance.
- No. of Tools: 18 EA (Turning 10 + Milling 7 + Dummy 1)

Servo Motor
L2600SY
Y-Axis CNC Turning Center

30° Slant Type Bed
The one-piece 30° slant bed design based on FEM analysis provides improvement in vibration absorption and machining stability during heavy duty cutting.

- **Rapid Traverse Rate (X/Z/ZB):** 18/24/24 m/min (708.7/945/945 ipm)
- **Travel (X/Z/ZB):** 200/580/500 mm (7.9”/22.8”/19.7”)

Wedge Type Y-axis
With BMT turret controlled by Y axis, a combined processing is possible only by one chucking.

- **Y Axis Rapid Traverse Rate:** 7.5 m/min (295.3 ipm)
- **Y Axis Feed Travel:** 100 (±50) mm (3.9”)

Main Features

Built-in Main Spindle
L2600SY features a built-in type spindle which effectively reduces noise, heat and vibration at high speed range. Also, rapid acc/deceleration reduces non-cutting time leading to higher productivity.

- **Spindle Speed:** 4,000 rpm
- **Spindle Power (Max./Cont.):** 22/15 kW (29.5/20.1 kWHP)

Built-in Sub Spindle
The 6” sub spindle with C-axis control offers wide range of operations and better machining ability.

- **Spindle Speed:** 6,000 rpm
- **Spindle Power (Max./Cont.):** 15/11 kW (20/20.1 kWHP)

Machining with Sub Spindle
Once the processing on the main spindle is completed, the sub spindle rotates at the same rate as the main spindle and the workpiece is handed over to the sub spindle.

Mill Turret
The BMT holder is firmly fixed with 4 screws, keeping it in place during heavy operations, especially during milling, drilling, and tapping.

**BMT65P**

- **No. of Tools:** 12 EA
- **Tool Size (OD/ID):** 25/Ø50 (1”/1.9”)
- **Indexing Time:** 0.15 sec/step
- **Speed:** 5,000 rpm
- **Collet size:** Ø25 (1”) (ER40)
L2100SY
Y-Axis CNC Turning Center

Main Features

Main Spindle
Heat produced by the main spindle is blocked by applying a symmetric one-piece base and an insulation plate. This enables maintenance of high accuracy even during a long period of machining.

- **Spindle Speed:** 4,500 rpm
- **Spindle Power:** 15 kW (20 HP)
- **Spindle Torque:** 254.2 N・m (187.4 lbf・ft)

6" Sub Spindle
The sub spindle is equipped with built-in motor and headstock cooling device as standard to minimize thermal displacement. Also, the use of sub spindle reduces setup time, improving productivity.

- **Spindle Speed:** 6,000 rpm
- **Spindle Power:** 7.5 kW (15 HP)
- **Spindle Torque:** 59.7 N・m (44 lbf・ft)

Box Guideway
All axes of L2100SY is designed with Box Guideways for better travel ability. Box Guideways show great performance in offsetting vibrations caused by heavy duty cutting.

- **Rapid Traverse Rate (X/Z/ZB):** 18/24/24 m/min (708.7/945/945 ipm)
- **Travel (X/Z/ZB):** 200/580/500 mm (7.9″/22.8″/19.7″)

Wedge Type Y-axis
With BMT turret controlled by Y axis, a combined processing is possible only by one chucking.

- **Y Axis Rapid Traverse Rate:** 12 m/min (472 ipm)
- **Y Axis Feed Travel:** 100 (±50) mm (3.9″)

C-Axis Control
C-axis control of main and sub spindle allows machining of various products. Especially with the use of live tools on the Y-axis.

Mill Tool Holder
Machining capability has increased with the addition of straight milling head tool holder, which can machine workpieces from the side, and angular milling head tool holder, which can perform I.D. operations.

- **Straight Milling Head**
- **Angular Milling Head**
Tradition

Desirable Think, Customs, Behaviors to be inherited from the past

HYUNDAI WIA set a milestone by being No.1 machine tool company for 11 years in a row after the start of machine tool business in 1976.

Especially, HYUNDAI WIA's accumulated knowhow and new technology applied Vertical Machining Center series is designed to minimize heat distortion and heavy-duty cutting by adopting angular contact ball bearing to actualize high rigidity, high precision and high accuracy.

HYUNDAI WIA vertical machining center will payback to customers by its world best quality.
F660M
Vertical Machining Center for Mold Machining

Main Features

4 Slideways Y-axis
4 Slideways on the Y-axis to minimize sagging of X-axis, enabling manufacture of high precision products.

Built-In Spindle
Maximum spindle speed up to 15,000 rpm is possible due to the installation of ultra precision Angular Ball Bearings. The spindle head is designed to minimize the heat displacement of main spindle, and with the use of a hydraulic tool lock system the machining stability is increased.

Servo ATC
Position control on the Twin Arm ATC using Servo Motors has improved drastically. The twin arm ATC enables faster tool change and increased productivity.

Roller Type LM Guide
For processing the highest quality mold products, the F660M is designed with roller LM guideways for high rigidity and enhanced acc/deceleration.
- Rapid Traverse Rate (X/Y/Z): 36/36/30 m/min (1,417/1,417/1,181 ipm)
- Travel (X/Y/Z): 1,400/660/635 mm (55.1”/25.9”/25”)

Table
Compared to competitive machines, the F660M has a large work envelop making setup and use easy and convenient for the operator.
- Table Size (L/W): 1,600/650 mm (63”×25.6”)
- Maximum Load Capacity: 1,300 kg (2,866 lb)

Spindle Cooling
The spindle cooling system minimizes thermal displacement which can happen during lengthy machining operations, and offers reliable machining based on the thermal stability.

Through Spindle Coolant
Through Spindle Coolant is exceedingly useful when drilling deep holes. It helps increase the lifetime of the tool, while decreasing cycle time.

Servo ATC
Position control on the Twin Arm ATC using Servo Motors has improved drastically. The twin arm ATC enables faster tool change and increased productivity.

Tool to Tool
Before: 1.9 sec
After: 1.5 sec 21% Reduction

Chip to Chip
Before: 4.1 sec
After: 3.9 sec 9.5% Reduction
Hi-MOLD750/5A
5-Axis Vertical Machining Center

Main Features

Combination X-Axis Slideway
The X-axis slideway on the Hi-MOLD750/5A is attached on the column’s top to minimize overhanging, and front facing X-axis Double Column structure means that high-accuracy is guaranteed.

Roller Type LM Guide
Rigidity and speed is improved by the use of Roller type LM Guideway. These highly responsive and accurate guideways contribute to the Hi-MOLD750/5A’s ability to meet the performance demands of mold machining.

◉ Rapid Traverse Rate (X/Y/Z): 50/50/50 m/min (1,968/1,968/1,968 ipm)
◉ Travel (X/Y/Z): 650/765/510 mm (25.6”)/30.1”/20”

Magazine & ATC
The tool magazine holds twenty-four (30) tools as standard. Tools are stored away from the cutting area to ensure they stay clean at all times.

Built-in Spindle
By using ultra precision class angular bearings, fast acceleration and deceleration of the main spindle is achieved. The spindle head is designed to minimize heat displacement therefore reducing growth and making it possible to maintain high accuracies.

Spindle Cooling
Spindle temperature can be controlled by the use of a spindle Oil chiller. This ensures constant oil temperature and minimizes growth in the spindle due to heat distortion.

HSK Tool Holder (HSK-A63)
The HSK spindle offers users the fastest possible material removal rates, highest accuracy, and rigidity. It guarantees stability when run at high spindle speeds which is excellent for mold manufacturing.

Direct Drive Motor (DDM) Tilting Rotary Table
The direct drive method on the DDM provides superb productivity and quality of work by improving upon the previous gear drive method, increasing accuracy as well as speed.

◉ Table Size: Ø630×500 mm (Ø24.8”x19.7”)
◉ Max. Load Capacity: 500 kg (1,102 lb)
Hi-MOLD6500
Vertical Machining Center for Mold Machining

**Main Features**

**Built-In Spindle**
The built-in Spindle, designed with Angular Contact Bearings at front and back, can rotate at 24,000 rpm. Also, high-speed and high-precision machining are possible with its rapid acceleration/deceleration. Especially, it reduces noise and vibration generated by high-speed, and minimizes thermal displacement to enable stable machining.

**Spindle Cooling**
Spindle temperature can be controlled by the use of a spindle Oil chiller. This ensures constant oil temperature and minimizes growth in the spindle due to heat distortion.

**Table & Machining Area**
Compared to competitive machines, the Hi-MOLD6500 has a large work envelop making setup and use easy and convenient for the operator.

- **Table Size (L/W):** 1,200/650 mm (47.2”/25.6”)
- **Max. Load Capacity:** 1,000 kg (2,205 lb)

**Double Column Structure**
Hi-MOLD6500 is built upon a bridge type column frame. The greatest benefit of the double column machining center is the increase of rigidity and the decrease of heat generation. Hence, it retains accuracy and repeatability at the highest levels.

**Step Type Column Structure**
Since the column’s X-axis cross beam has incorporated a “step type” design, the load that occurs at the front during machining has reduced. Furthermore, stability has increased by optimizing the column’s weight.

**Nut Cooling Ball Screw**
Hi-MOLD6500 has also adopted ball screw nut cooling system which protects travel axes from thermal displacement.

- **Rapid Traverse Rate (X/Y/Z):** 40/40/40 m/min (1,575/1,575/1,575 ipm)
- **Travel (X/Y/Z):** 1,100/650/550 mm (43.3”/25.6”/21.7”)

**Magazine**
The tool magazine and machining area are completely separated by a shutter so that chip, coolant and dust particles can be blocked. This helps to maintain high precision and cleanliness. Also, 30-pocket tool magazine is provided for increased machining flexibility and user convenience.

- **No. of Tools:** 30 EA
- **Tool Shank:** BBT40
- **Tool Change Time**
  - (T-T): 2 sec
  - (C-C): 6.5 sec
Main Features

Main Spindle
The spindle is designed with angular contact ball bearings to increase rigidity, prevent thermal displacement. Due to the maximum spindle speed of 24,000rpm(i-CUT400M), various type of machining is possible. While in reverse rotation, Double Speed Return function reduces processing time.

Rigid Tapping
Rigid tapping, which is selected as the standard, maximizes productivity by rapid and accurate tap manufacturing. Also, the manufacturing level is superb, and lifespan of tap tools is increased.

Through Spindle Coolant
Through Spindle Coolant is exceedingly useful when drilling deep holes. It helps increase the lifetime of the tool, while decreasing cycle time.

LM Guideway
High speed axis movement is achieved by the use of LM guideways. This reduces non-cutting time and decreases machining time for greater productivity. (Z-Axis : Roller LM Guide)
- Rapid Traverse Rate (X/Y/Z): 56/56/56 m/min (2,205/2,205/2,205 ipm)
- Travel (X/Y/Z)
  - i-CUT400T/M : 500/400/330 mm (19.7”/15.7”/13”)
  - i-CUT450T : 700/450/330 mm (27.6”/17.7”/13”)
  - i-CUT400TD : 520/400/330 mm (20.5”/15.7”/13”)

Servo ATC
Servo motor is applied on the ATC to reduce tool change time. Also, accurate tool positioning control increases cutting stability.
- No. of Tools : 14 [21] EA
- Tool Change Time: C-O : 1.6 [2.1] sec

Magazine
The 14 Tool Armless Type magazine is provided as standard and 21 Tool Armless Type magazine is provided as an option. Due to the decrease of tool change time, non-cutting time is minimized.

No. of Tools : [14] EA
Tool Change Time: C-O : [1.6] sec

LM Guideway

Through Spindle Coolant

Main Spindle

Rigid Tapping

Servo ATC

Magazine
HYUNDAI-WIA will make your dreams come true with the new controller, HYUNDAI-iTROL. Experience the new operating environment with HYUNDAI-iTROL.

Monitor
10.4 inch TFT LCD monitor

High Durability
By using magnesium body and special foil it is protected from coolant and dust, achieving IP65 certification.

User Friendly Control Panel
- LED screen that shows alarm, program and utility status
- New coating technique improves durability

Special Buttons
- ‘ECO’ button to save energy
- ‘SMART’ button to optimize machining
- ‘S/W FUNCTION’ button to call certain function

User Friendly Keyboard
- QWERTY keyboard
- Mechanical buttons and protection film
- Protection from coolant and dust with protection level IP65

Interface Port
- 1 Ethernet port at front
- 1 Ethernet port at back
- 1 USB port
- 1 CF card port

Smart System to get ready for operation
When power is on, it gives the worker instructions to do warm-up. It also informs the worker of machine problems beforehand by showing current machine status.

- Utilities & S/W Function On/Off
- Periodic Checkup
- Getting ready to Operate

Tool & Spindle Monitoring
Tool and spindle monitoring can be easily done with simple operation. This helps with tool management, spindle protection and factory automation.

- Monitoring tool abrasion and breakage
  (Enabling production automation and improving product reliability)
- Alarm occurs when there is spindle overload
  (Protecting spindle from failure and increasing spindle life)

Energy Saving Function (ECO) & SMART Machining
You can use energy saving function (ECO) and machining optimization function (SMART) with MCP button.

- Energy Saving Function (ECO)
- Machining Optimization Function (SMART)
Robust Machining Center with Revolutionary Productivity

Quality

Characteristic and Background

Main spindle demonstrates excellent performance when heavy duty cutting with its high rigidity. Productivity improvement APC is the advantage in HYUNDAI WIA Horizontal Machining Center.

The root in producing automobile engines, parts is our horizontal machining center and its quality is favorably commented upon global customers.

A leading horizontal machining center will offer customer satisfaction by the best quality in the world.
HS4000M
High Speed Horizontal Machining Center

Main Features

**Step Type Bed Structure**
It is designed to minimize the load occurring at the front. Also, travel stability is increased by column weight optimization.

<table>
<thead>
<tr>
<th>X-axis Rigidity</th>
<th>Other Machine</th>
<th>25% UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS4000M</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Nut Cooling Ball Screw**
Nut cooling ball screws on all axes (HS4000M) decrease thermal displacement which enhances precision machining ability.

**High-Speed Roller Guideway**
Large linear roller guideways are applied to reduce non-cutting time and bring high rigidity.

**Rapid Traverse Rate** (X/Y/Z): 50/50/50 m/min (1,968/1,968/1,968 ipm)

**Travel** (X/Y/Z): 620/560/650 mm (24.4″/22″/25.6″)

**Built-in Spindle**
The built-in main spindle minimizes vibration and heat during high speed rotation and achieves fast acceleration/deceleration.
Also, thermal displacement can be minimized by applying oil & Air cooling system.

**APC & Pallet**
The servo motor driven APC is designed with HYUNDAI WIA’s advanced technology where APC driving time is reduced significantly. Its best-in-class pallet changing time helps reduce non-cutting time and improve productivity.

- **Table Change Time**: 7 sec
- **B Axis Index Angle**: Std: 1° [Opt: 0.001°]

**Servo ATC**
Servo motor is applied on the ATC to reduce tool change time. Also, accurate tool positioning control increases cutting stability.

<table>
<thead>
<tr>
<th>Tool Change Time (C-C)</th>
<th>Other Machine</th>
<th>HS4000M</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>21% Reduction</td>
</tr>
</tbody>
</table>

- **No. of Tools**: 40 [60/80/120] EA
- **Tool Shank**: BBT40 [HSK-A63]
- **Tool Selection Method**: Fixed
HYUNDAI WIA is second to none in organizing an automated line for productivity improvement. Based on our world-level experience in the FA business, we deliver automation lines to our customers in various industries such as automobiles, electronics, etc. Especially, we are the only company to keep factories with the automation system in our country in an effort to improve the automation capability.
LV800AW-TT
Vertical Turning Center for AL. Wheel Cutting

Built-In Spindle
For best quality products, built-in spindle minimizes vibration and heat and provides fast acc/deceleration.
- SP. Speed: 3,000 rpm
- SP. Motor (Max./Cont.): 55/37 kW (73.8/49.6 HP)
- SP. Torque (Max./Cont.): 495/294 N·m (365/216.8 lbf·ft)

VDI 2 Turret
LV800AW-TT is designed with 2 turrets. Machining inner and outer surfaces of the wheel can be done simultaneously, reducing the machining time by 20% compared to that of 1-turret machine.

F650 PLUS
Vertical Machining Center

High Precision Spindle
(Thermal Displacement: 35% improvement, Acc/Deceleration: 8.3% improvement)
Compared with the previous models, thermal displacement and the acc/deceleration has been improved by 35% and 8.3% respectively. It enhances machining ability with reduced non-cutting time so it is possible to machine highly precise products.
- SP. Speed: 8,000 [10,000] rpm
- SP. Torque (Max./Cont.): 286/143 [117.6/95.3] N·m [210.9/105.4 [86.7/70.3] lbf·ft]

Dual Contact Spindle
The Big Plus spindle system (BBT40) provides dual contact between the spindle face and the flange face of the tool holder. This greatly increases tool rigidity, reduces run out and adds significant productivity to machining applications.

Servo ATC
Position control of the Twin Arm ATC using Servo Motors has been improved drastically. Also the tool changing speed has been improved, leading to the reduction of non-cutting time.
- Tool Change Time (T-T): 1.3 sec (C-C): 3.8 sec
Optimized Line Center for Power Train

**Capability**

**Power To Accomplish Anything**

HYUNDAI WIA is the only machine tool manufacturing company in Hyundai Motor Group to produce specialized FA machines for powertrain parts cutting.

HYUNDAI WIA line center series has the fastest feed, specialized machine structure and flexible factory automation composition to contribute in automobiles' quality.

HYUNDAI WIA FA line center series show excellence in cutting capability, production line's efficiency increase and integrated process for innovative productivity.

In total, we call this "Capability"
FA & Robot
High Quality Mass Production

Assembly
Machine for Automobile

- System to ensure superior quality and to avoid mistakes (Fool-proof)
- Servo press, vision, friction conveyor, central-control production system, quality data managing program.

Robot System - General Purpose Manipulators

HYUNDAI WIA line-up includes manipulators developed to meet diverse industrial requirements. From the assembly of miniature components, weighing only a few grams, to robots capable of handling 700 kg. The line-up is supported by our continuous development of control technology to improve functionality and operation for optimum control of the manipulator.
HYUNDAI WIA  FA LINE CENTER

FA Business of HYUNDAI WIA

FA Business of HYUNDAI WIA seeking the productivity improvement is the business of plant automation and focus on leading world power train market with high efficient equipment and advanced automation line, as the professional company of the world top class vehicle productor.

WH50TS

Transmission Machining
FA Line Center

- Table Size (D): Ø400 [500] (Ø15.7˝[19.7˝])
- Spindle Speed: 16,000 rpm
- Travel (X/Y/Z): 630/560/630 mm (24.8˝/22˝/24.8˝)
WH50C
Engine Machining
FA Line Center
- Table Size (B): Ø500 (Ø19.7”)
- Spindle Speed: 15,000 rpm
- Travel (X/Y/Z): 630/560/560 mm (24.8”/22”/22”)

WH60T
Transmission Machining
FA Line Center
- Table Size (B): Ø600 (Ø23.6”)
- Spindle Speed: 6,000 rpm
- Travel (X/Y/Z): 800/630/1,000 mm (31.5”/24.8”/39.4”)

Main Features

Built-in Spindle
By designing the spindle as built in motor, it reduces the vibration and heats which can arise during the high speed rotation of spindle suppressed to the minimal and the quick positive/negative acceleration realized.

In particular, it shows unique performance on the power train products processing as it is able to support with P4 grade of high precision bearing and to ensure the stable precision even in the high speed of heavy weight cutting operation.

- Spindle Speed: 16,000 rpm
- Spindle Power: 28 kW (37.5 HP)
- Spindle Acc/Deceleration: 0.87/0.73 sec

Spindle Cooling
With the oil cooling system of spindle adapted in standard, it guarantees the stable processing capacity as it is able to minimize the thermal displacement which can be arise during the process and to maintain a steady temperature of spindle.

Step Type Bed Structure
WH50TS is designed to minimize the load occurring at the front. Also, travel stability is increased by column weight optimization.

High-Speed Roller Guideway
Large linear roller guideways are applied to reduce non-cutting time and bring high rigidity.

- Rapid Traverse Rate (X/Y/Z): 62/62/62 m/min (2,441/2,441/2,441 ipm)
- Travel (X/Y/Z): 630/560/630 mm (24.8"/22"/24.8")

HSK Tool Holder (HSK-A63)
For HSK tool holder, it is able to maintain high level of location degree even in the high speed rotation as it has lower extension of spindle taper in high speed rotation and the cross section of holder is adhered to it.

Magazine & ATC
The tool magazine holds 40 tools as standard depending on model. Fixed address tool selection method and a separate magazine control panel enhance user convenience. Also, the servo driven ATC dramatically decreases tool change time and its structure is less complicated compared to the inverter type for easier repair & maintenance.

- Tool Change Time (C-C): 3.0 sec
WH50C
Line Center for Engine Part Machining

**Built-in Spindle**
15,000 rpm built-in spindle is applied to minimize vibration and heat distortion and fulfilled variable speed high-accuracy P4 level bearings secure stable accuracy and demonstrates superior ability when cutting power train parts.

- **Spindle Speed:** 15,000 rpm
- **Spindle Power (Cont.):** 26 kW (34.9 HP)
- **Spindle Torque (Cont.):** 75 N·m (55.3 lbf·ft)

**NC Rotry Table**
A-axis, B-axis and AB-axis table can be chosen to cut various optimized forms.

**WH60T**
Line Center for Transmission Part Machining

**Built-in Spindle**
By designing the spindle as built in motor, it reduces the vibration and heats which can arise during the high speed rotation of spindle suppressed to the minimal and the quick positive/negative acceleration realized.

- **Spindle Speed:** 6,000 rpm
- **Spindle Power (Cont.):** 29.3 kW (39.3 HP)
- **Spindle Torque (Cont.):** 200 N·m (147.5 lbf·ft)

**Step Type Bed Structure**
WH60T is designed to minimize the load occurring at the front. Also, travel stability is increased by column weight optimization.

**Z Axis Twin Ball Screw**
The Z axis performs severe tasks relative to other axis. Therefore, the Z axis guarantees more stable transmission performance by designing the ball screw bisectionally to minimize the over hange which can be arisen on the transmission.

**Roller Guideway**
With the roller guide for high weight adapted the stability has been established when transmitting the heavy weighted materials and non-cutting time been reduced with prompt axis movement.

**Rapid Traverse Rate (X/Y/Z):**
60/60/60 m/min (2,362/2,362/2,362 ipm)

**Travel (X/Y/Z):**
800/630/1,000 mm (31.5"/24.8"/39.4")
Smart Factory

**HW-MMS** (HYUNDAI WIA—Machine Monitoring System)

**HW-MMS**

A brand new manufacturing machine by HYUNDAI WIA, HW-MMS is a unique software capable of monitoring the operation status of manufacturing machines in factories, a smart solution to improve manufacturing conditions of customers.

01 Real-time monitoring of machine operation status (Cloud)
02 History and statistics of machine operation (Cloud)
03 History and statistics of alarm occurrence (Cloud)
04 History and statistics of work count (Cloud)
05 Remote diagnosis (Remote)

HYUNDAI WIA

Smart Solution

- **HYUNDAI WIA Global Server**
  - Real-time monitoring of machine operation status, alarm, and statistics
  - E-mail & SMS transmission

- **HYUNDAI WIA Remote**
  - Remote facility diagnosis and control
  - Image diagnosis using smart phones

Customer Factory 1

- Monitoring Agent 1

Customer Factory 2

- Monitoring Agent 2

- **HW-MMS PC Environmental**
  - Windows XP, 7 | Over CPU : 3GHz | RAM : 2GB | Over HDD : 500 MB
- **HW-MMS Cloud**
  - HYUNDAI-iTRON, FANUC 0i-D/31i-A, Over SIEMENS 828D/840D V4.5 SP5
- **HW-MMS Remote**
  - HYUNDAI-iTRON, FANUC 0i-F/31i-B (0i-D/31i-A Prior Consultation), Over SIEMENS 828D/840D
HEADQUARTER

Changwon Technical Center/R&D Center/Factory
153, Jeongdong-ro, Seongsan-gu, Changwon-si, Gyeongsangnam-do, Korea (Zip Code : 51533)
TEL : +82 55 280 9114  FAX : +82 55 282 9680

Uiwang Technical Center/R&D Center
37, Cheoldobangmulgwan-ro, Uiwang-si, Gyeonggi-do, Korea (Zip Code : 16082)
TEL : +82 31 596 8209  Fax : +82 55 210 9804

OVERSEAS OFFICES

HYUNDAI WIA Machine Tools Europe
Kaiserleipromenade 5, D-63067
Offenbach, Germany
TEL : +49 69271 472 701
FAX : +49 69271 472 719

JIANGSU HYUNDAI WIA
Company No.6 Fenghuang Road,
Fenghuang Town, Zhangjiagang City,
Jiangsu province, China
TEL : +86 512 5672 6808
FAX : +86 512 5671 6960

RAUNHEIM SERVICE CENTER
RAUNHEIM R&D CENTER
Kelsterbacher Strasse 51, 65479
Raunheim, Germany
TEL : +49 6142 9256 0
FAX : +49 6142 834 100

GUANGZHOU OFFICE
#311, Baoli Daduhui, Hanxi Dadao Road,
Panyu, Guangzhou, Guangdong, China
(511400)
TEL : +86 186 2050 4321

HYUNDAI WIA MACHINE TOOLS CHINA
1–3F, Bldg#6, No.1535 Hongmei Road,
Xuhui District, Shanghai, China (200233)
TEL : +86 21 6427 9885
FAX : +86 21 3431 0376

SHANGHAI OFFICE
2F, BLDG #6, No. 1535 Hongmei Road,
Xuhui, Shanghai (200233)
TEL : +86 138 1880 8042

HYUNDAI WIA MACHINE TOOLS AMERICA
265, Spring Lake Drive, Itasca, IL, 60143
TEL : +1 201 489 2887
FAX : +1 201 489 2723

BEIJING OFFICE
14th Floor, B Building, Zhonghangji Plaza,
No. 15 Ronghua Nan Road, Yizhuang
Economic Development Zone, Daxing,
Beijing (100176)
TEL : +86 136 0121 0735

INDIA OFFICE
4B, Sur. No78-08, Kandamangalam Village,
Sengadu Post, Siperumbudur Taluk,
Kancheepuram, Tamilnadu-602 105, India
TEL : +91 44 3717 6333
FAX : +91 44 3717 6363

CHENGDU OFFICE
#508, B Tower, Zhonghang International
Square, No. 88 Jiaozi Dadao Road, Gaoxin,
Chengdu, Sichuan, China (610000)
TEL : +86 181 4010 8660

PINGYUAN OFFICE
302, BLDG B, Donghe Center, Dongfeng
3 Road, Hankou, Wuhan, Hubei, China
(430056)
TEL : +86 185 0279 2913

QINGDAO OFFICE
#1207, Caifu BLDG, 182-6 Haier Road,
Laoshan, Qingdao, Shangdong, China
(266071)
TEL : +86 180 0532 1285