

HYUNDAI WIA Machine Tool
High Performance 8"/10" CNC Turning Center

HD-Y SERIES



EXPERIENCE THE NEW TECHNOLOGY

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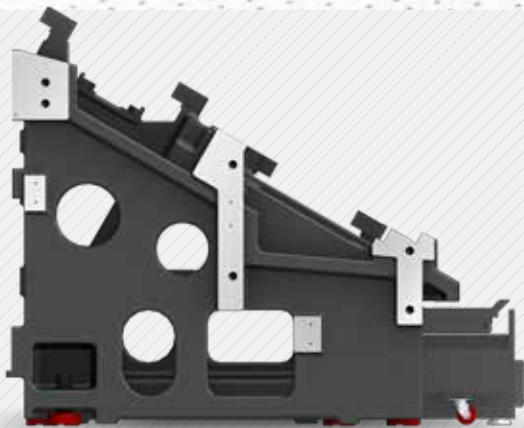
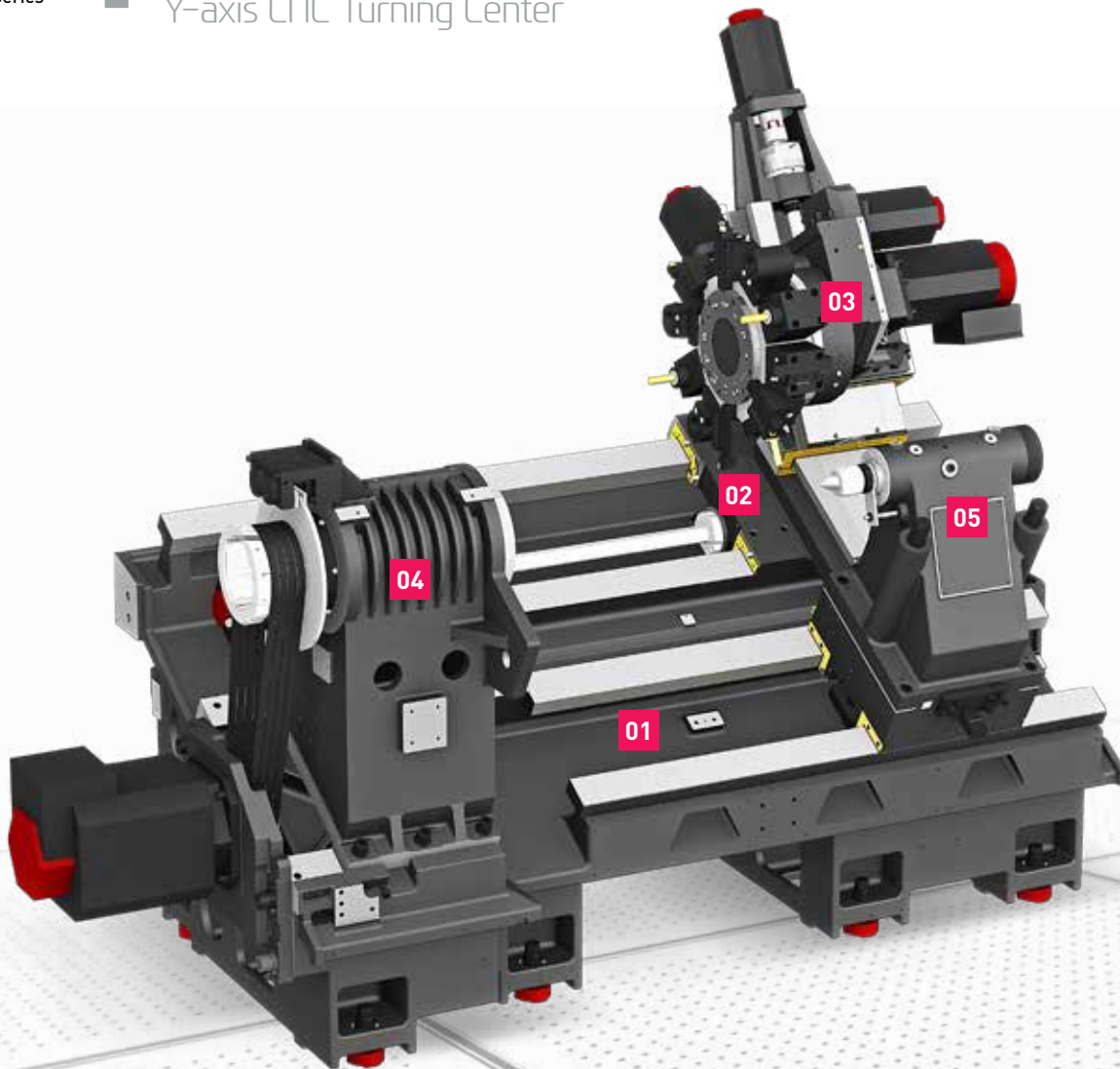
HYUNDAI
WIA

01

HD-Y Series

Basic Features

High Precision & Heavy Duty Cutting
Y-axis CNC Turning Center



01 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 heavy-duty cutting.

In addition, the HD-Y Series bed slope is pitched at **30 degrees** to ensure more stable machining.

Integrated Coolant Tank

The structure is designed with the coolant tank installed at the bed front for improved convenience. Chips can be removed from the right side of the machine.

02 Y-axis Function

HD-Y Series

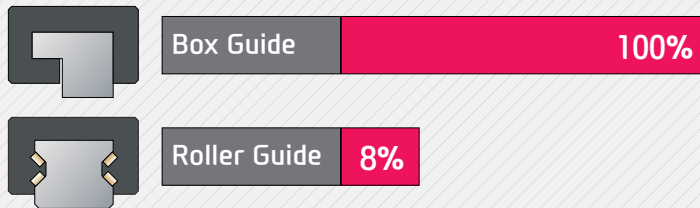
High Accuracy, Highly Reliable, Powerful
Wedge Type Y-axis Structure

02 Box Guideway on All Axes

With the mounting of box guideways on all axes, the machine offers excellent vibration absorption even against during heavy-duty cutting, enabling high-quality machining.

<6-Face constraint design for improved travel capacity>

Comparing Damping Values



⊙ **Rapid Traverse Rate** (X/Y/Z axis) : 24/10/30 m/min (944/394/1,181)

⊙ **Travel** (X/Y/Z axis) : 215/110/680 mm (8.5"/4.3"/26.8")

03 Wedge Type Y-axis Structure

The HD-Y Series is designed with a wedge type Y-axis that is transferred by the simultaneous operation of the Ys-axis and the X-axis. In addition, excellent rigidity makes possible to perform superb quality when machining a heavy-duty cutting.

Mill Turret (BMT55P Turret)

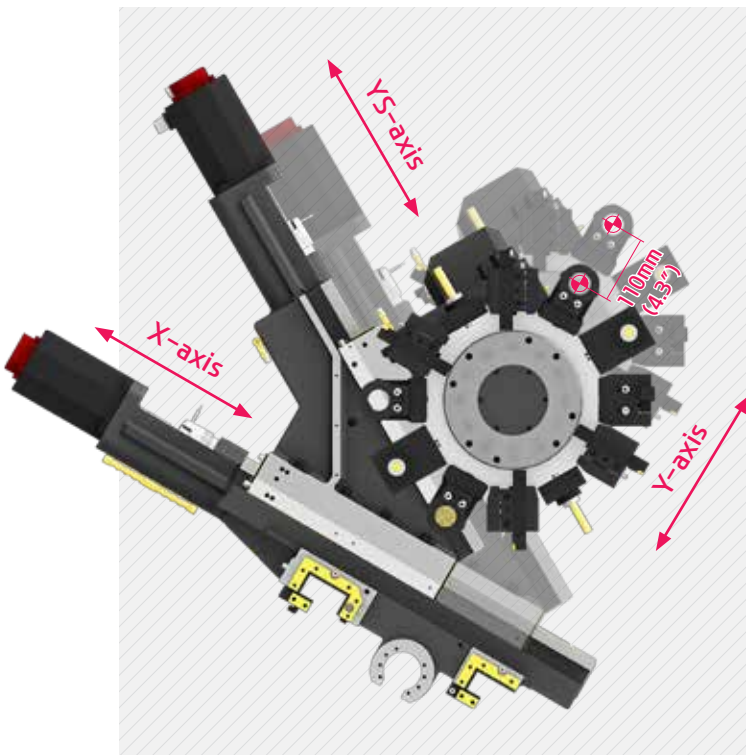
The large BMT55P turret enables the HD-Y Series to perform high accuracy milling operations in a single set-up.

The BMT turret is driven by a high torque servo motor with a 0.2 second indexing time(1 Step) in either direction.

⊙ **Max. Speed** : 6,000 r/min

⊙ **Max. Output** : 5.5 kW (7.4 HP)

⊙ **Max. Torque** : 52.5 N·m (39 lbf·ft)

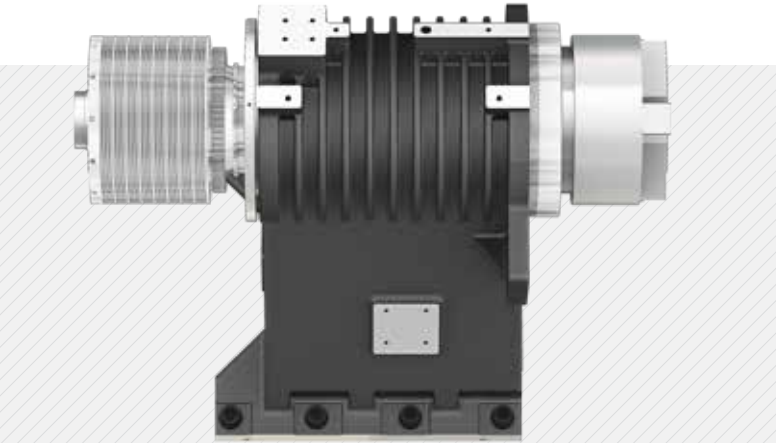


N3

HD-Y Series

High-Precision Spindle

Long Lasting, High Accuracy & Excellent Performance
CNC Turning Center



04 Spindle for Heavy Cutting

The main spindle is designed with the same structure often found in larger sized machines. The combination of taper 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.

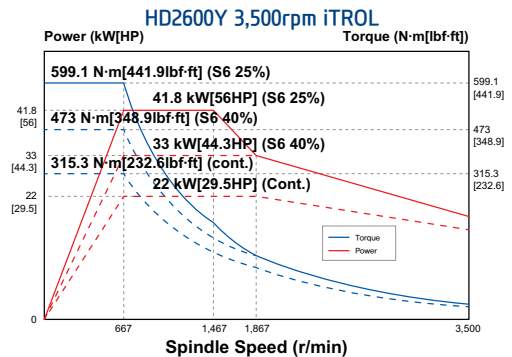
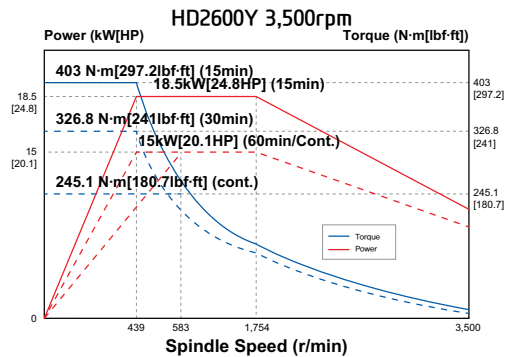
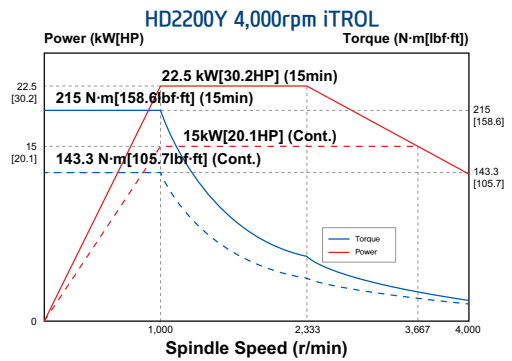
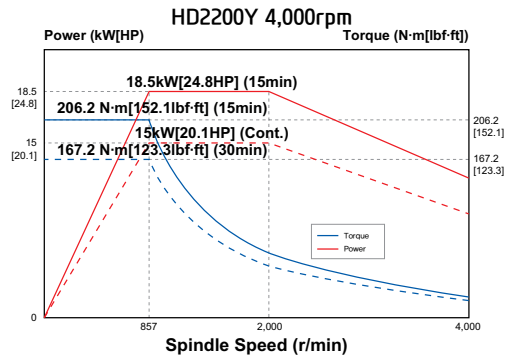
C-Axis Control

C-axis of HD-Y Series can be controlled to 0.001° which makes it possible to process various shapes.

05 Tail Stock

Tailstock enables stable machining of high quality products where quill travels up to 120mm (4.7").

- ◉ Quill Type : **MT#4**
- ◉ Quill Dia. : **Ø80 mm (Ø3.1")**
- ◉ Quill Travel : **120 mm (4.7")**
- ◉ Travel : **680 mm (26.8")**



SPECIFICATIONS

Tooling System

unit : mm

ITEM			HD2200Y HD2600Y	
			mm unit	inch unit
Turning Holder	O.D Holder	Right/Left	4	4
		Double	-	-
		Double (24P, Rear)	-	-
		Double (24P)	-	-
	Facing Holder	1	1	
	Cutting Holder	-	-	
Boring Holder	I.D Holder	Single	3	3
		Double	-	-
		Triple	-	-
	U-Drill Holder	Cap	1	1
Driven Holder	Straight Mill Holder	Standard	2	2
	Angular Mill Holder	Standard	2	2
Socket	Boring	Ø10 (Ø3/8")	1	1
		Ø12 (Ø1/2")	1	1
		Ø12 (Ø1/2")	1	1
		Ø20 (Ø3/4")	1	1
		Ø25 (Ø1")	1	1
		Ø32 (Ø1 1/4")	1	1
	Sub Boring	Ø10 (Ø3/8")	-	-
		Ø12 (Ø1/2")	-	-
		Ø16 (Ø5/8")	-	-
		Ø20 (Ø3/4")	-	-
	Drill	MT 2	Opt.	Opt.
		MT 3	Opt.	Opt.
		MT 4	Opt.	Opt.
	ER Collet		1 Set	1 Set
	Adapter Set		Opt.	Opt.

Standard

Main Spindle Hollow Chuck 3 Jaw | Standard Soft Jaw (1set) | Chuck Clamp Foot Switch | Cs-Axis (0.001°) | Standard Live Center | Standard Coolant (Nozzle) | High Pressure Coolant (0.5Bar [7.3psi]) | Side Coolant Tank | Total Splash Guard | 1 Step Call Light | Standard Hyd. Cylinder | Standard Hyd. Unit (35bar [507.6 psi] /15 L [4ga]) | Tool Box |

Machine Guidance (HW-MCG) | Energy Saving System (HW-ESS) |

Option

2 Steps Hyd. Pressure Device | Chuck Open/Close Confirmation Device | 2 Steps Chuck Foot Switch | Built-in Tail Stock | Programmable Tail Stock | 2 Steps Tail Stock Pressure System | Quill Forward/Reverse Confirmation Device | Tail Stock Foot Switch | Chuck Coolant (Upper Chuck) | TTC (Tool Thru. Coolant) | Gun Coolant | Chuck Air Blow (Upper Chuck) | Tail Stock Air Blow (Upper Tail Stock) | Air Gun | High Pressure Coolant (6Bar [87psi], 20Bar [290psi]) | Rear Coolant Tank | Chip Conveyor (Hinge/Scraper/Screw) | Chip Wagon | 2 Step Call Light | 3 Step Call Light & Buzzer | 15" Monitor | Electric Cabinet Light | Work Counter | Total Counter | Multi Tool Counter | Electric Circuit Breaker | Transformer | Auto Power Off | Manual Q-Setter | Automatic Q-Setter | Work Close Confirmation Device | Auto Tool Measuring Device | Air Conditioner | Oil Skimmer | Ito Door | Auto Shutter | Bar Feeder Interface | workpusher (Spring type) | Extra M-Code 4ea | I/O Extension (IN & OUT) | Parts Catcher |

Tool Monitoring (HW-TM) | Spindle Heat Distortion Compensation (HW-TDC) | DNC software (HW-eDNC) | Machine Monitoring System (HW-MMS) | Conversational Program (HW-DPRO) |

SPECIFICATIONS

Specifications

[] : Option

ITEM		HD2200Y	HD2600Y
CAPACITY	Swing Over the Bed	Ø820 (Ø32.3")	
	Max. Turning Dia.	Ø300 (Ø11.8")	
	Max. Turning Length	520 (20.5)	
	Bar Capacity	Ø76 (Ø3")	Ø81 (Ø3.2")
SPINDLE	Chuck Size	8"	
	Spindle Bore	Ø76 (Ø3")	
	Spindle Speed (rpm)	4,000 [4,000]	
	Motor (Max/Cont.)	18.5/15 (24.8/20.1) [22.5/15 (30.2/20.1)]	18.5/15 (24.8/20.1) [41.8/22 (56/29.5)]
	Torque (Max/Cont.)	206.2/167.2 (152.1/123.3) [215/143.3 (158.6/105.7)]	403/245.1 (297.2/180.7) [599.1/315.3 (441.9/232.6)]
	Spindle Type	BELT	
	Spindle Nose	A2-6	A2-8
	C-axis Indexing	0.001°	
FEED	Travel (X/Y/Z)	215/110/680 (8.5"/4.3"/26.8")	
	Rapid Traverse Rate (X/Y/Z)	24/10/30 (944/394/1,181)	
	Slide Type	BOX GUIDE	
TURRET	No. of Tools	12	
	Tool Size (O.D./I.D.)	□ 25/Ø40 (□ 1"/Ø1.6")	
	Indexing Time	0.2	
	Y-Axis Type	WEDGE TYPE	
LIVE TOOL	Type	BMT55P	
	Milling Tool Speed (rpm)	6,000	
	Motor (Max/Cont.)	5.5/3.7 (7.4/5)	
	Torque (Max)	52.5 (38.7)	
TAIL STOCK	Taper	MT#4	
	Quill Dia.	Ø80 (Ø3.1)	
	Travel	680 (26.8)	
MACHINE	Floor Space (L×W)	3,220×1,775 (126.8"×69.9")	
	Height	1,950 (76.8)	
	Weight	4,700 (10,362)	5,100 (11,244)
CNC	Controller	HYUNDAI WIA FANUC i Series [HYUNDAI-iTROL]	

External Dimensions

unit : mm(in)

