

HD2600/3100

HYUNDAI WIA CNC Turning Center



High Speed, Rigidity and Productivity
The Next Generation CNC Turning Center

HD 2600 3100

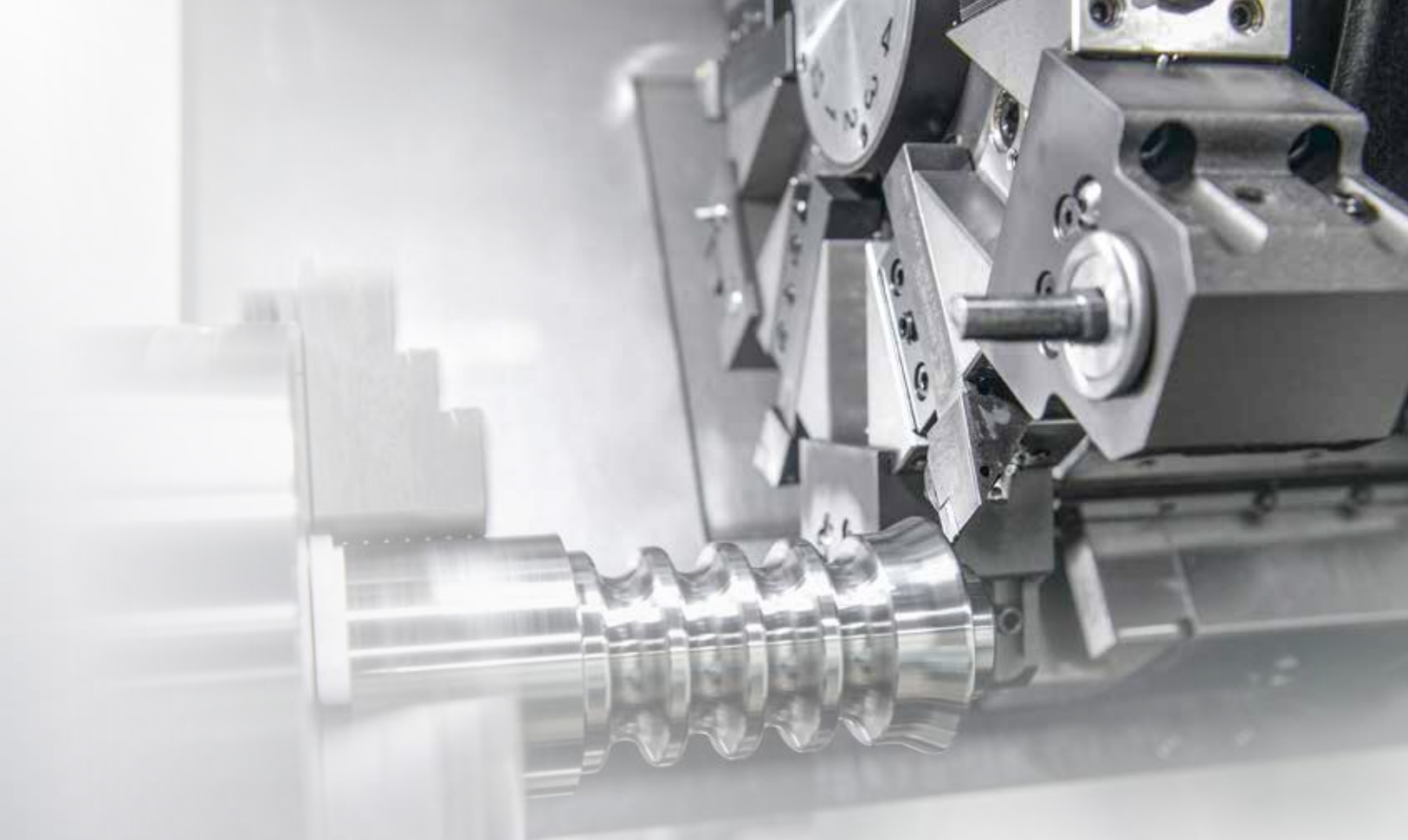
- > Box guideways for heavy-duty cutting
- > Stabilized unit structure to minimize thermal displacement
- > User convenient structure for high productivity
- > Excellent rapid traverse rate: 30m/min [1,181ipm] (Z-axis)
- > High-rigidity and high-speed servo turret
(Expanded disk width)
- > Ergonomic design for convenient access to chuck and tool

Technical Leader

The CNC Turning Center HD2600/3100, designed by Hyundai WIA with years of expertise and the latest technology, is a Turning Center that maximizes productivity and performance.

ITEM	Chuck		Bed (Z-Axis)			Standard Turret		Mill Turret	
	10"	12"	680mm (26.8")	830mm (32.7")	1,350mm (53.1")	10 Station	12 Station	BMT55P	BMT65P
HD2600	●		●			●	○		
HD2600M	●		●					●	
HD2600LE	●			●		●	○		
HD2600LME	●			●					●
HD3100		●		●		●	○		
HD3100M		●		●					●
HD3100L		●			●	●	○		
HD3100LM		●			●				●

●: Standard ○: Option

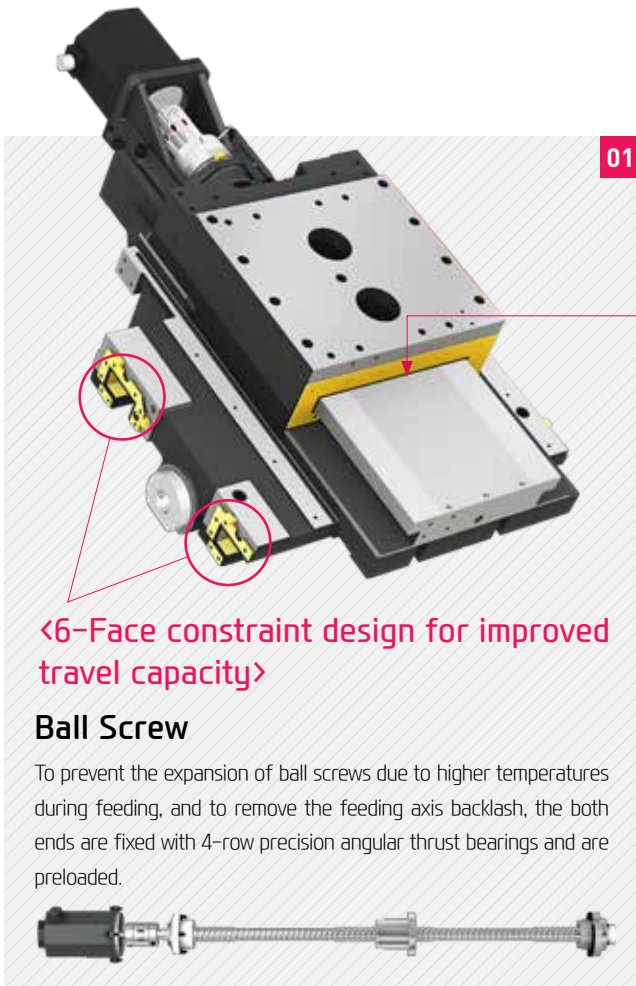


01

HD2600/3100

Basic Features

The Best Productivity 10 & 12 inch Heavy-duty Cutting CNC Turning Center



01

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.

Closed-type GIB Structure

The guide attachment surface of X-axis guideway has been changed to a sealed GIB structure to minimize X-axis turcite damage caused by chips. As a result, the machining capacity has been greatly enhanced too.

<6-Face constraint design for improved travel capacity>

Ball Screw

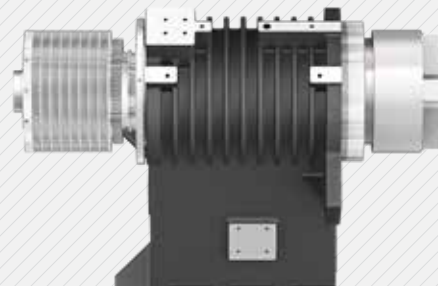
To prevent the expansion of ball screws due to higher temperatures during feeding, and to remove the feeding axis backlash, the both ends are fixed with 4-row precision angular thrust bearings and are preloaded.



02

Main Spindle

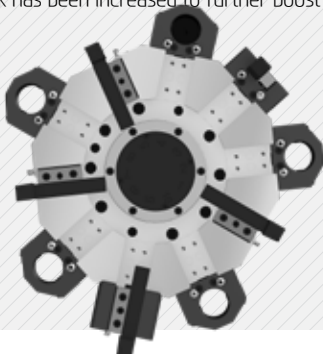
The main spindle is designed to maintain a high-rigidity of continuous operation for a long time by the integral body structure and the heat dissipating RIB structure.



03

Turret

The design features reinforced turret rigidity to withstand heavy cutting and ensure excellent machining. In addition, the width of the turret disk has been increased to further boost rigidity.



04

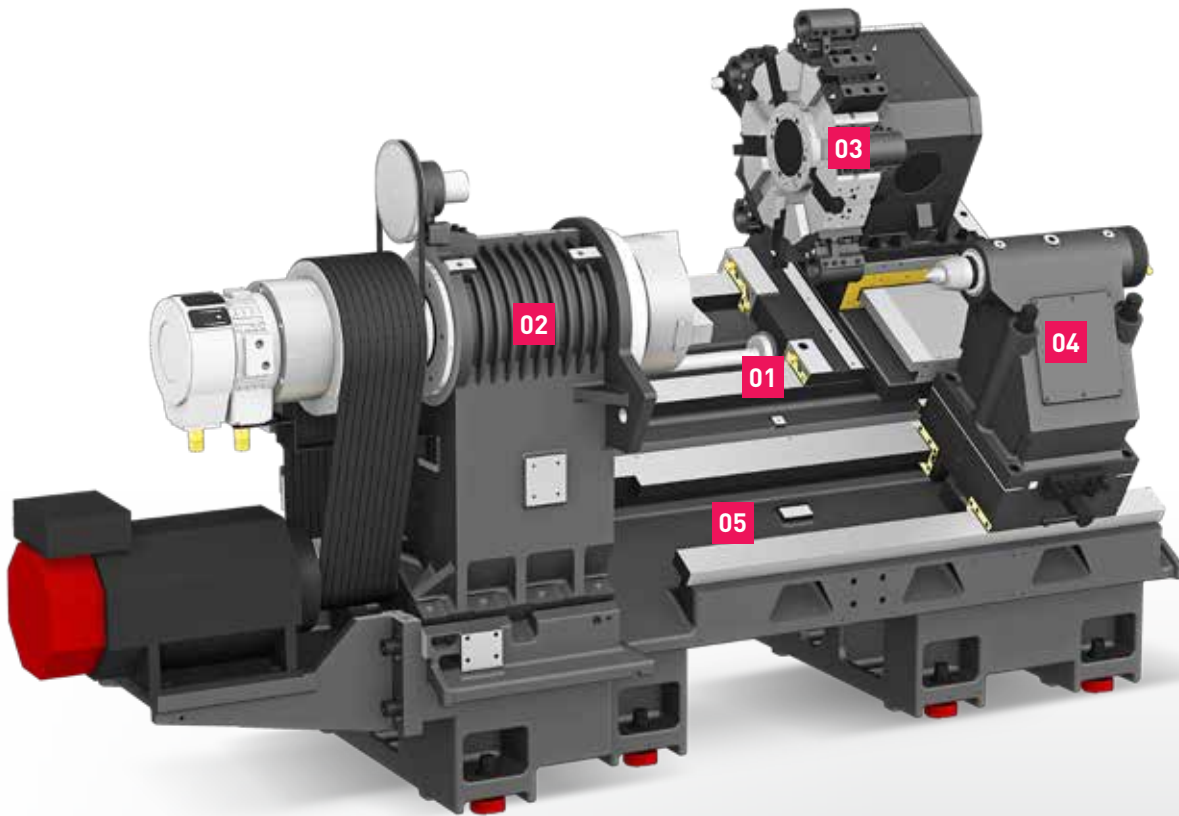
Tail Stock

The HD2600 and HD3100 are fitted with tailstocks as a standard for excellent machining quality. In addition, the travel distance of quill can be as long as 120mm(4.7"), thus expanding the support area.

- ◉ Quill Type : **MT#5**
- ◉ Quill Dia. : **Ø100 mm (3.9")**
- ◉ Quill Travel : **120 mm (4.7")**
- ◉ Reinforced tailstock rigidity :
Thrust **742 kgf → 989 kgf**



Basic Structure



Bed Slant **30°**

05 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 HD2600/3100's 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

⊙ **Rapid Traverse Rate** (X/Z axis) : **24/30** m/min (**945/1,181** ipm)

⊙ **Travel** (X/Z axis) :

HD2600	265/680 mm (10.4"/26.8")	HD3100	265/830 mm (10.4"/32.7")
HD2600M	265/680 mm (10.4"/26.8")	HD3100M	265/830 mm (10.4"/32.7")
HD2600LE	265/830 mm (10.4"/32.7")	HD3100L	265/1,350 mm (10.4"/53.1")
HD2600LME	265/830 mm (10.4"/32.7")	HD3100LM	265/1,350 mm (10.4"/53.1")

02
HD2600/3100

High-Precision Spindle

Long Lasting High Accuracy & Excellent Performance
CNC Turning Center



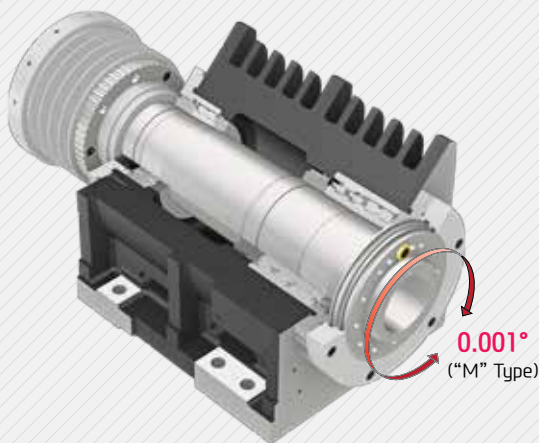
Spindle Ideal for Heavy Cutting

The HD2600 and HD3100 feature torque of 734N·m(541.4lbf·ft) and 1,123N·m(828.3lbf·ft), respectively, ensuring excellent performance in heavy-duty cutting, interrupted cutting, and so on (specially designed for extra heavy workpiece).

In particular, the HD3100 features a gear spindle as an option [gear: 1,613N·m(1,189.7lbf·ft) torque], thus meeting customer needs for a stronger heavy-duty cutting function.

Ribstar-type Belt

With the previous stick-slip problems in low-speed sections now resolved, machining precision and noise suppression have been improved.



HD2600 : 3,500rpm

HD3100 : 2,800rpm

26 kW
Max. Output

26 kW
Max. Output

734 N·m
Max. Torque

1,123.5 N·m
Max. Torque

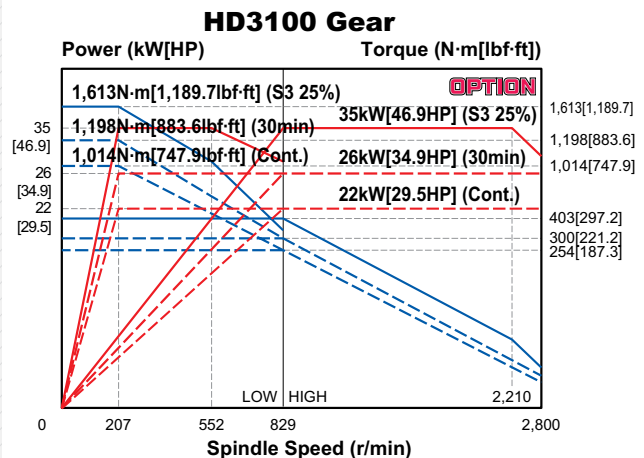
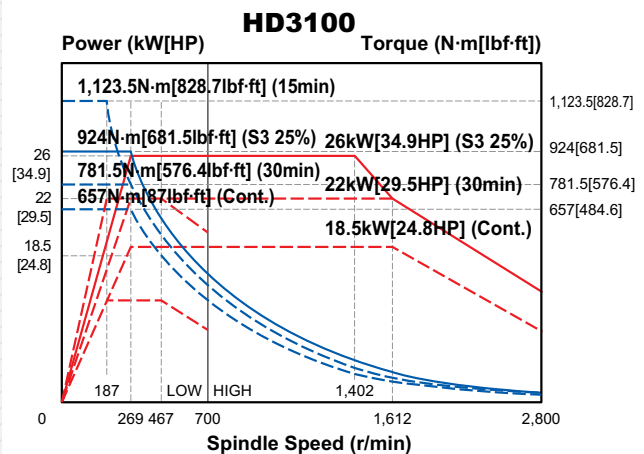
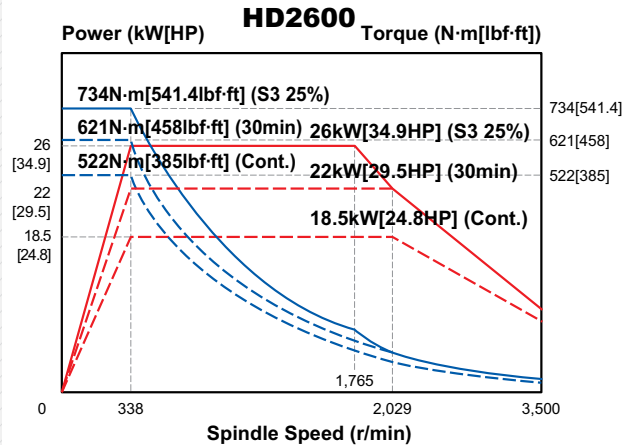
34.9 HP
Max. Output

34.9 HP
Max. Output

541.4 lbf·ft
Max. Torque

828.7 lbf·ft
Max. Torque

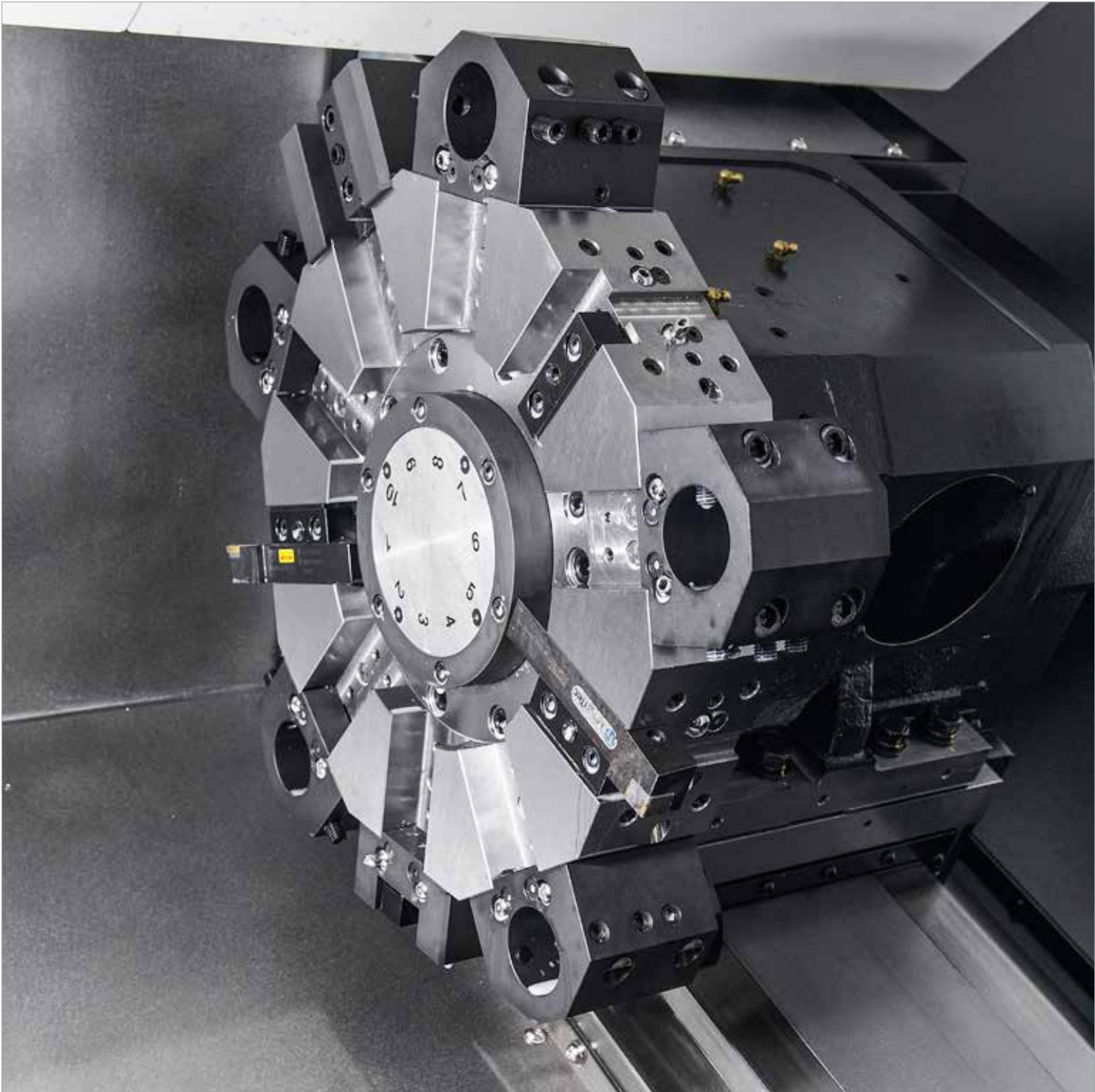
Opt. [GEAR : 35kW (46.9HP) 1,613 N·m (1,190 lbf·ft)]



n3
HD2600/3100

Servo Turret

High-speed, High-Accuracy, Highly Reliable
Servo Turret



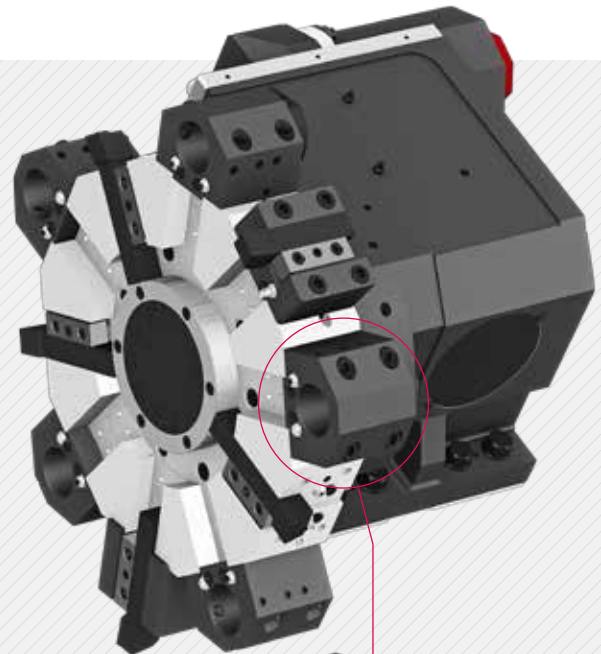
Turret

The turret of HD2600/3100 series is joined with a high performance AC servo motor, improving machining reliability. The 3-piece coupling shows excellent performance in indexing. Powerful hydraulic tool clamping minimizes tool tip deviation caused by workload.

Expanded disk width

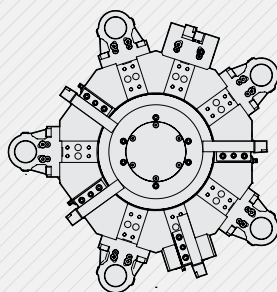
HD2600	90 mm (3.5")	20% ▲
HD3100	120 mm (4.7")	20% ▲

<Static-Rigidity Increased : I.D 20%, O.D 3% ▲>



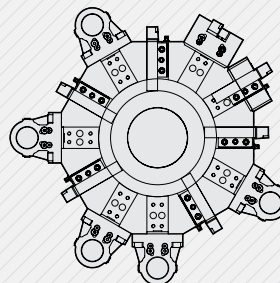
20 Bar(290 psi) High Pressure Coolant **OPTION**

Turret is designed to utilize **20 bar(290 psi)** high pressure coolant and it shows optimum performance in machining difficult-to-cut material.



10 Station

- No. of Tools : 10 EA
- Tool Size (O.D/I.D)
□ 25/Ø50 (□ 1/Ø2)



12 Station

- No. of Tools : 12 EA
- Tool Size (O.D/I.D)
□ 25/Ø50 (□ 1/Ø2)

04
HD2600/3100

BMT Turret

High-speed, High-accuracy, Highly Reliable
Servo Turret



BMT Turret (Mill Turret)

BMT turret where each holder is fixed with 4 screws, shows outstanding performance in milling, drilling and tapping during heavy-duty cutting.



BMT55P (HD2600M)

- Motor (Max/Cont.) : **3.7/2.2 kW (5/3 HP)**
- Speed(rpm) : **6,000** r/min
- Collet Size : **Ø16 (0.6") (ER25)**
- Indexing Time : **0.15** sec

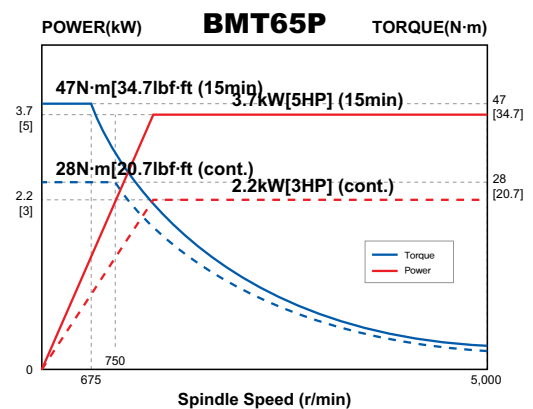
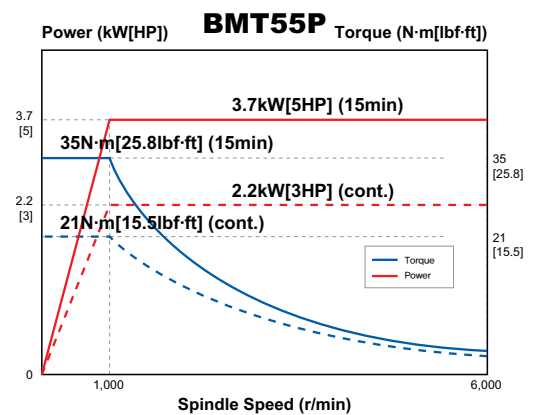
BMT65P (HD2600LME | HD3100M/LM)

- Motor (Max/Cont.) : **3.7/2.2 kW (5/3 HP)**
- Speed(rpm) : **5,000** r/min
- Collet Size : **Ø25 (1") (ER25)**
- Indexing Time : **0.15** sec



Mill Tool Holder

Machining capability is increased with the addition of a Straight Milling Head which can remove material from the side and an Angular Milling Head which can perform I.D. operations.



05

HD2600/3100

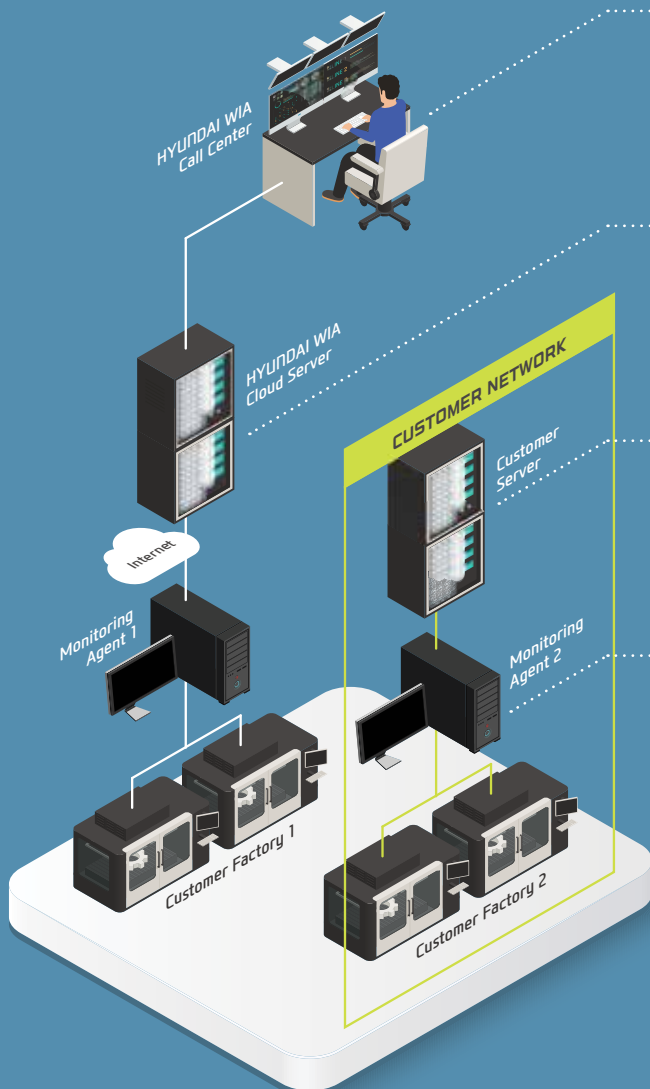
iRiS HYUNDAI WIA Smart Factory Solution

integrated Revolution of industrial Solution

iRiS is HYUNDAI WIA's Smart Factory Solution.

iRiS, HYUNDAI WIA's revolutionary smart factory solution, consists of **Smart Monitoring System** for integrated management of HYUNDAI WIA machines around the world, and the **Smart Machining System** with ease, quality control, productivity and safety of the operator in mind.

SMART MONITORING



HW-MMS Remote (Remote service based)

Hyundai Wia Call Center's remote diagnosis service provides a HMI/video diagnostic function.



HW-MMS Cloud (Cloud server based)

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



HW-MMS Edge (Customer Server Based)

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



HW-MMS Collector (Machine data collector)

A dedicated program for collecting CNC data for MES/ERP.

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.

SMART MACHINING



HW-MCG
HYUNDAI WIA
Machine Guidance

Software that offers operation, maintenance, management monitoring and various user friendly features.



HW-TDC
HYUNDAI WIA Thermal
Displacement Compensation

Software that measures the changes in the external environment as well as heat emission during processing to help reduce thermal displacement.



HW-TM
HYUNDAI WIA
Tool Monitoring

A tool monitoring software which analyzes the load of the spindle motor to determine and monitor possible damage of tools.



HW-ESS
HYUNDAI WIA
Energy Saving System

An environmental friendly software that reduces the unnecessarily wasted standby power waiting for an operation.



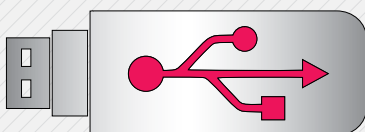
HW-DPRO
HYUNDAI WIA
Dialogue PROgram

Software to create machining program easily and quickly through interactive operation



HW-eDNC
HYUNDAI WIA ethernet
Direct Numerical Control

This software allows transmission of NC data between PC and a machine's CNC. The processing programs can be managed on the PC through the ethernet or serial communication.



USB Port

Convenience is increased when inputting and outputting program. The USB port is available in addition to the former input output methods such as CF memort card and LAN.

n6

HD2600/3100

Automation System



Various User Friendly Devices

Bar Feeder System

Bar Feeder

Bar feeder system enables automation which leads to efficiency improvement.

Long Type	3 m (118.1")
Max Bar Capacity	Ø42 mm (1.7")
Short Type	1.5 m (59.1")
Max Bar Capacity	Ø65 mm (2.6")



Work Conveyor

The parts conveyor transfers the finished workpiece unloaded by the parts catcher for user convenience.

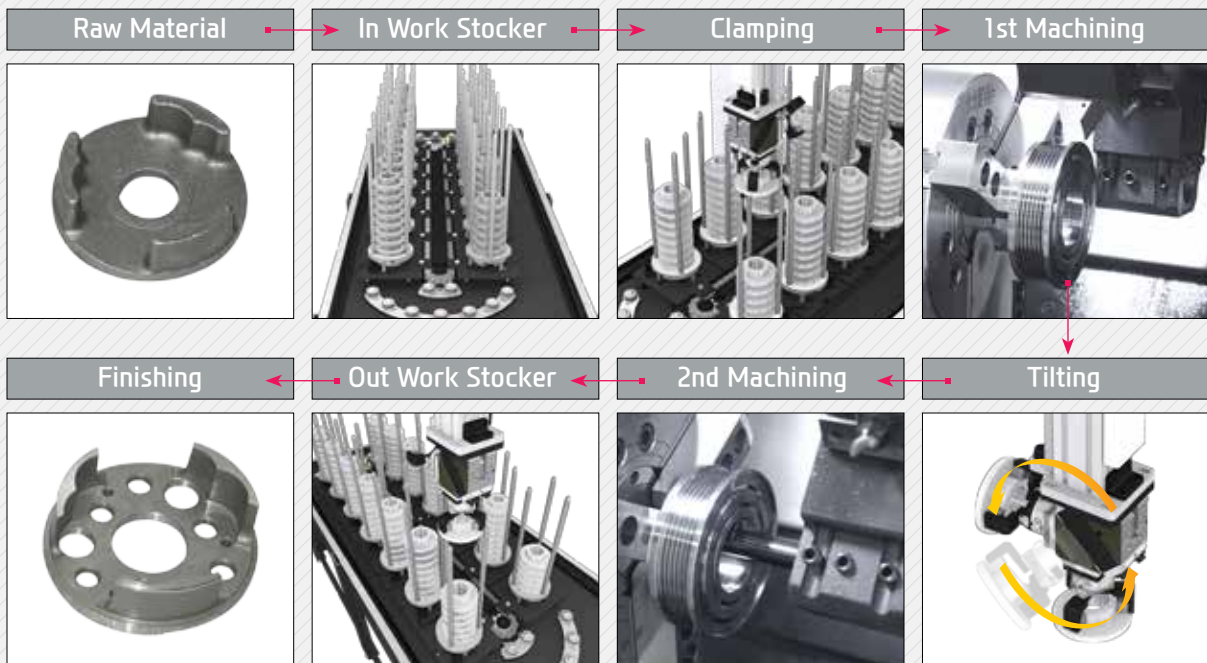


Gantry Loader System



Gantry Loader Machining Process

The high speed gantry loaders and the work stocker allow the implementation of automation cells. This enables machining process flexibility and productivity enhancement.



SPECIFICATIONS

Standard & Optional

Spindle		HD2600/LE	HD2600M/LME
Main Spindle	10"	●	●
Hollow Chuck 3 Jaw	12"	○	○
Main Spindle	10"	○	○
Solid Chuck 3 Jaw	12"	-	-
Standard Soft Jaw (1set)		●	●
Chuck Clamp Foot Switch		●	●
2 Steps Hyd. Pressure Device		○	○
Spindle Inside Stopper		☆	☆
5" Index		-	-
Cs-Axis (0.001")		-	●
Chuck Open/Close Confirmation Device		○	○
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
Straight Milling Head (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 Holder		●	●
O.D Extension Holder	For Out-Dia	●	-
Angle Head		-	-
Tail Stock & Steady Rest			
Quill Type Tail Stock	MT#4	-	-
	MT#5	●	●
Built-in Tail Stock	MT#4	○	○
Programmable Tail Stock		○	○
Manual Type Hyd. Steady Rest		-	-
Standard Live Center		●	●
High Precision Live Center		☆	☆
2 Steps Tail Stock Pressure System		○	○
Quill Forward/Reverse Confirmation Device		○	○
Tail Stock Foot Switch		○	○
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Through Spindle Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	☆
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		○	○
Turret Air Blow		☆	☆
Air Gun		○	○
Through Spindle Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	0.5Bar (7.3psi)	●	●
	6Bar (87psi)	○	○
	20Bar (290psi)	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller (Only for Sub Tank, Chip Conveyor)		-	-
Chip Disposal			
Coolant Tank	Side	●	●
	Rear	○	○
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Rear (Rear)	○	○
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

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

Safety Device		HD2600/LE	HD2600M/LME
Total Splash Guard		●	●
Electric Device			
Call Light	1Color : ●	●	●
Call Light	2Color : ● ● ●	○	○
Call Light	3Color : ● ● ● ●	○	○
Call Light & Buzzer	3Color : ● ● ● B	○	○
Electric Cabinet Light		○	○
Remote MPG		-	-
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	30KVA	○	○
Auto Power Off		○	○
Measurement			
Manual Q-Setter		○	○
Manual Q-Setter (Renishaw)		○	○
Automatic Q-Setter (Renishaw)		○	○
Work Close Confirmation Device (Only for Special Chuck)	TACO	☆	☆
	SMC	☆	☆
Auto Tool Measuring Device		☆	☆
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor, bladder Type)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer (Only for Chip Conveyor)		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door		○	○
Auto Shutter (Only for Automatic System)		☆	☆
Sub Operation Pannel		☆	☆
Bar Feeder Interface		○	○
Bar Feeder (FEDEK)		☆	☆
workpusher (Spring type)		○	○
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	○	○
Turret Work Pusher (For Automation)		☆	☆
Parts Conveyor (Required Main Parts Catcher)		☆	☆
Semi Automation System		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	●	●
	35bar (507.6 psi) /24 ℓ (6.3gal)	HD2600, HD2600M : ●	
Standard Hyd. Unit	35bar (507.6 psi) /30 ℓ (7.9gal)	HD2600LE, HD2600LME : ●	
S/W			
Machine Guidance (HW-MCG)		●	●
Energy Saving System (HW-ESS)		●	●
Tool Monitoring (HW-TM)		○	○
Spindle Heat Distortion Compensation(HW-TDC)		○	○
DFC software (HW-eDFC)		○	○
Machine Monitoring System (HW-MMS)		○	○
Conversational Program (HW-DPRO)		○	○
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

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

SPECIFICATIONS

Standard & Optional

Spindle		HD3100/L	HD3100M/LM
Main Spindle	12"	●	●
Hollow Chuck 3 Jaw	15"	-	-
Main Spindle	12"	-	-
Solid Chuck 3 Jaw	15"	-	-
Standard Soft Jaw (1set)		●	●
Chuck Clamp Foot Switch		●	●
2 Steps Hyd. Pressure Device		○	○
Spindle Inside Stopper		☆	☆
5° Index		☆	☆
Cs-Axis (0.001°)		-	●
Chuck Open/Close Confirmation Device		○	○
2 Steps Chuck Foot Switch		○	○
Turret			
Tool Holder		●	●
Mill Turret	BMT	-	●
Straight Milling Head (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 Holder		●	●
O.D Extension Holder	For Out-Dia	●	-
Angle Head		-	-
Tail Stock & Steady Rest			
Quill Type Tail Stock	MT#4	-	-
	MT#5	●	●
Built-in Tail Stock	MT#4	○	○
Programmable Tail Stock		○	○
Manual Type Hyd. Steady Rest		-	-
Standard Live Center		●	●
High Precision Live Center		☆	☆
2 Steps Tail Stock Pressure System		○	○
Quill Forward/Reverse Confirmation Device		○	○
Tail Stock Foot Switch		○	○
Coolant & Air Blow			
Standard Coolant (Nozzle)		●	●
Chuck Coolant (Upper Chuck)		○	○
Gun Coolant		○	○
Through Spindle Coolant (Only for Special Chuck)		☆	☆
Thru Coolant for Live Tool		-	☆
Chuck Air Blow (Upper Chuck)		○	○
Tail Stock Air Blow (Upper Tail Stock)		○	○
Turret Air Blow		☆	☆
Air Gun		○	○
Through Spindle Air Blow (Only for Special Chuck)		☆	☆
High Pressure Coolant	0.5Bar (7.3psi)	●	●
	6Bar (87psi)	○	○
	20Bar (290psi)	○	○
Power Coolant System (For Automation)		☆	☆
Coolant Chiller (Only for Sub Tank, Chip Conveyor)		-	-
Chip Disposal			
Coolant Tank	Side	●	●
	Rear	○/-	○/-
Chip Conveyor (Hinge/Scraper)	Front (Right)	○	○
	Rear (Rear)	○/-	○/-
Special Chip Conveyor (Drum Filter)		☆	☆
Chip Wagon	Standard (180 ℓ [47.5 gal])	○	○
	Swing (200 ℓ [52.8 gal])	○	○
	Large Swing (290 ℓ [76.6 gal])	○	○
	Large Size (330 ℓ [87.2 gal])	○	○
	Customized	☆	☆

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

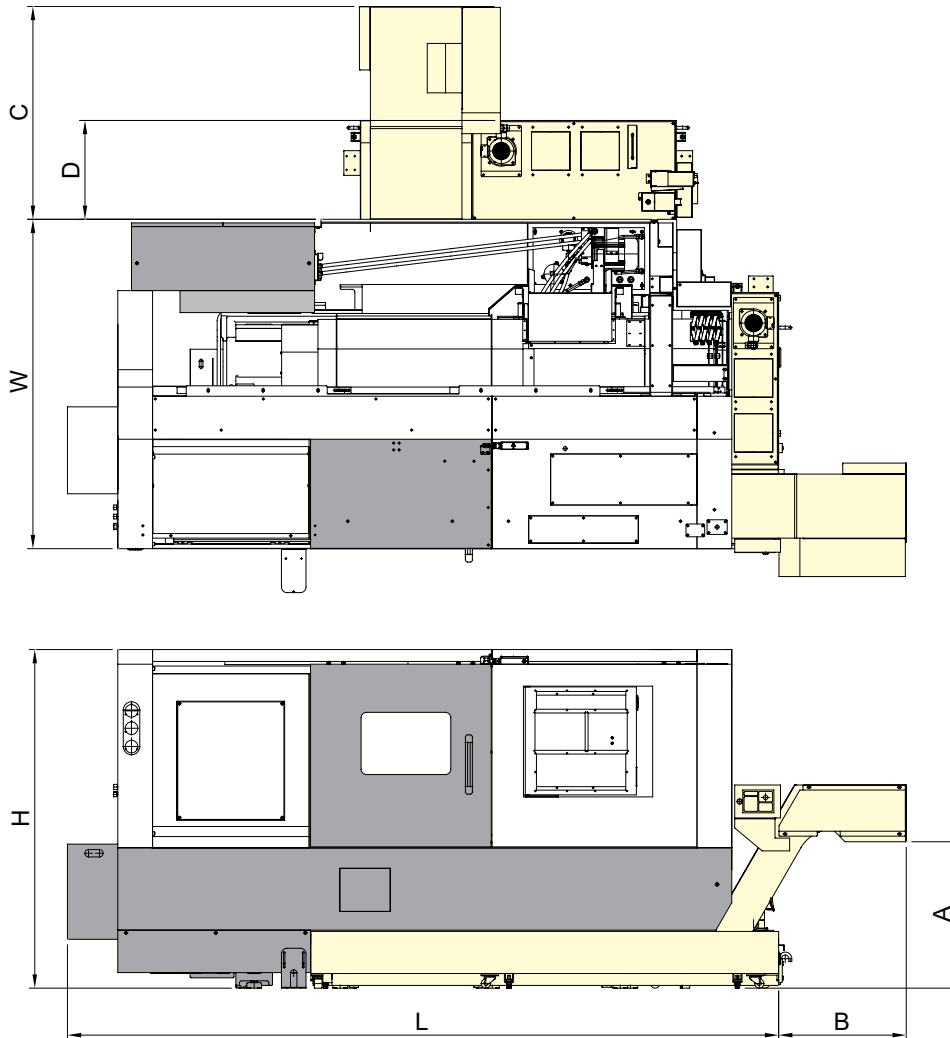
Safety Device		HD3100/L	HD3100M/LM
Total Splash Guard		●	●
Electric Device			
Call Light	1Color : ●	●	●
Call Light	2Color : ●●	○	○
Call Light	3Color : ●●●	○	○
Call Light & Buzzer	3Color : ●●● B	○	○
Electric Cabinet Light		○	○
Remote MPG		-	-
Work Counter	Digital	○	○
Total Counter	Digital	○	○
Tool Counter	Digital	○	○
Multi Tool Counter	Digital	○	○
Electric Circuit Breaker		○	○
AVR (Auto Voltage Regulator)		☆	☆
Transformer	30kVA (Belt)	○	○
	35kVA (Gear)	○	○
Auto Power Off		○	○
Measurement			
Manual Q-Setter		○	○
Manual Q-Setter (Renishaw)		○	○
Automatic Q-Setter (Renishaw)		○	○
Work Close Confirmation Device	TACO	☆	☆
(Only for Special Chuck)	SMC	☆	☆
Auto Tool Measuring Device		☆	☆
Linear Scale	X Axis	○	○
	Z Axis	○	○
Coolant Level Sensor (Only for Chip Conveyor, bladder Type)		☆	☆
Environment			
Air Conditioner		○	○
Oil Mist Collector		☆	☆
Oil Skimmer (Only for Chip Conveyor)		○	○
MQL (Minimal Quantity Lubrication)		☆	☆
Fixture & Automation			
Auto Door		○	○
Auto Shutter (Only for Automatic System)		☆	☆
Sub Operation Pannel		☆	☆
Bar Feeder Interface		○	○
Bar Feeder (FEDEK)		☆	☆
workpusher (Spring type)		○	○
Extra M-Code 4ea		○	○
Automation Interface		☆	☆
I/O Extension (IN & OUT)	16 Contact	○	○
	32 Contact	○	○
Parts Catcher	Main SP.	○	○
Turret Work Pusher (For Automation)		☆	☆
Parts Conveyor (Required Main Parts Catcher)		☆	☆
Semi Automation System		☆	☆
Hyd. Device			
Standard Hyd. Cylinder	Hollow	●	●
Standard Hyd. Unit	35bar (507.6 psi) /30 ℓ (7.9gal)	●	●
S/W			
Machine Guidance (HW-MCG)		●	●
Energy Saving System (HW-ESS)		●	●
Tool Monitoring (HW-TM)		○	○
Spindle Heat Distortion Compensation(HW-TDC)		○	○
DNC software (HW-eDNC)		○	○
Machine Monitoring System (HW-MMS)		○	○
Conversational Program (HW-DPRO)		○	○
ETC			
Tool Box		●	●
Customized Color	Need Munsel No.	☆	☆
CAD & CAM		☆	☆

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

SPECIFICATIONS

External Dimensions

unit : mm(in)

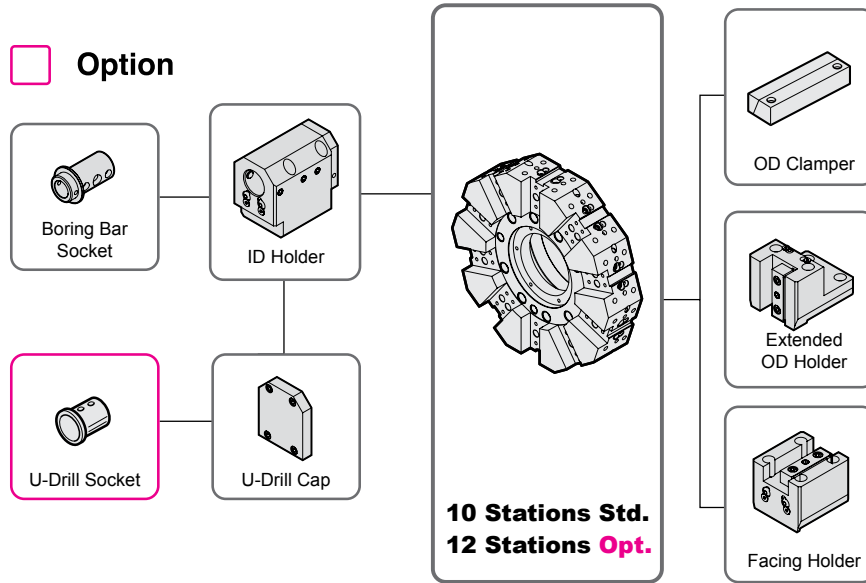


Dimension		HD2600	HD2600M	HD2600LE	HD2600LME	HD3100	HD3100M	HD3100L	HD3100LM
Length	L	3,400 (133.9")		3,885 (153")			4,405 (173.4")		
Length (Gear Spindle Opt.)		-		-		4,045 (159.2")	-	4,565 (179.7")	-
Width	W	1,708 (67.2")		1,800 (70.9")			1,978 (77.9")		
Height	H	1,755 (69.1")		1,850 (72.8")					
Conveyor height	A	1,200 (47.2") or 850 (33.5") [Opt.]							
Side type chip conveyor	B	1,120 (44.1")		900 (35.4")			980 (38.6")		
Rear type chip conveyor	C	1,210 (47.6")		1,120 (44.1")			-		
Rear tank	D	630 (24.8")		540 (21.3")			-		

SPECIFICATIONS

Tooling System

unit : mm(in)



Tooling Parts Detail

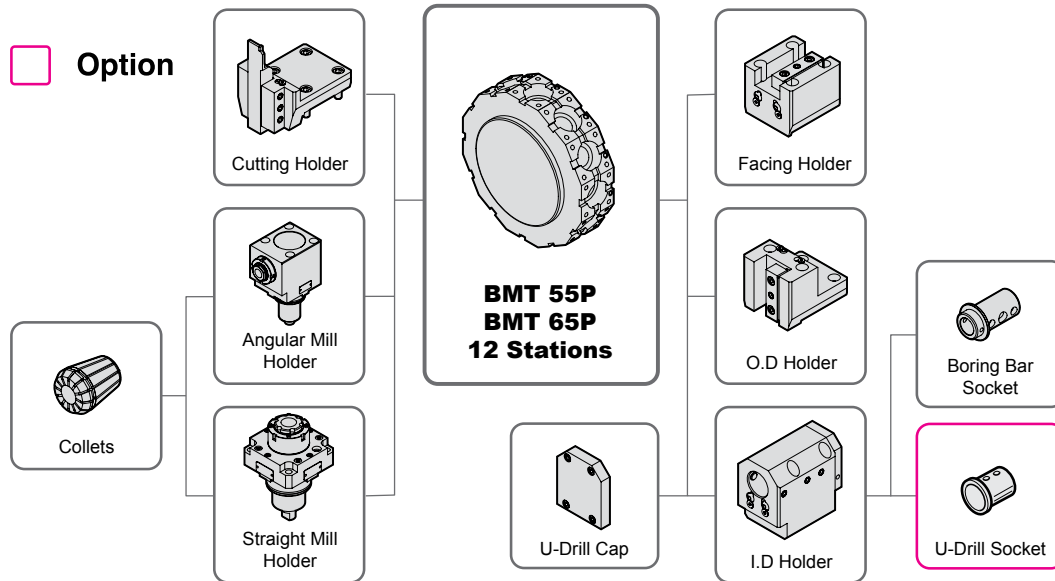
ITEM			HD2600		HD2600LE		HD3100		HD3100L	
			mm Unit	inch Unit	mm Unit	inch Unit	mm Unit	inch Unit	mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	-	-	-	-	-	-	-	-
		Extension	1	1	1	1	1	1	1	1
	Facing Holder		1	1	1	1	1	1	1	1
Boring Holder	I.D Holder	Single	5	5	5	5	5	5	5	5
	U-Drill Holder	Cap	1	1	1	1	1	1	1	1
Driven Holder	Straight Mill Holder	Standard	-	-	-	-	-	-	-	-
		TTC	-	-	-	-	-	-	-	-
	Angular Mill Holder	Standard	-	-	-	-	-	-	-	-
		TTC	-	-	-	-	-	-	-	-
Socket	Boring	Ø12 (Ø1/2")	1	1	1	1	1	1	1	1
		Ø16 (Ø5/8")	1	1	1	1	1	1	1	1
		Ø20 (Ø3/4")	1	1	1	1	1	1	1	1
		Ø25 (Ø1")	1	1	1	1	1	1	1	1
		Ø32 (Ø1 1/4")	1	1	1	1	1	1	1	1
		Ø40 (Ø1 1/2")	1	1	1	1	1	1	1	1
	Drill	MT 1 x MT 2	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 2	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 3	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 4	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
	ER Collet		-	-	-	-	-	-	-	-

Specifications are subject to change without notice for improvement. (HD3100 Series - I.D. Tool Holder Single/U-drill <Combined Use>)

SPECIFICATIONS

Tooling System

unit : mm(in)



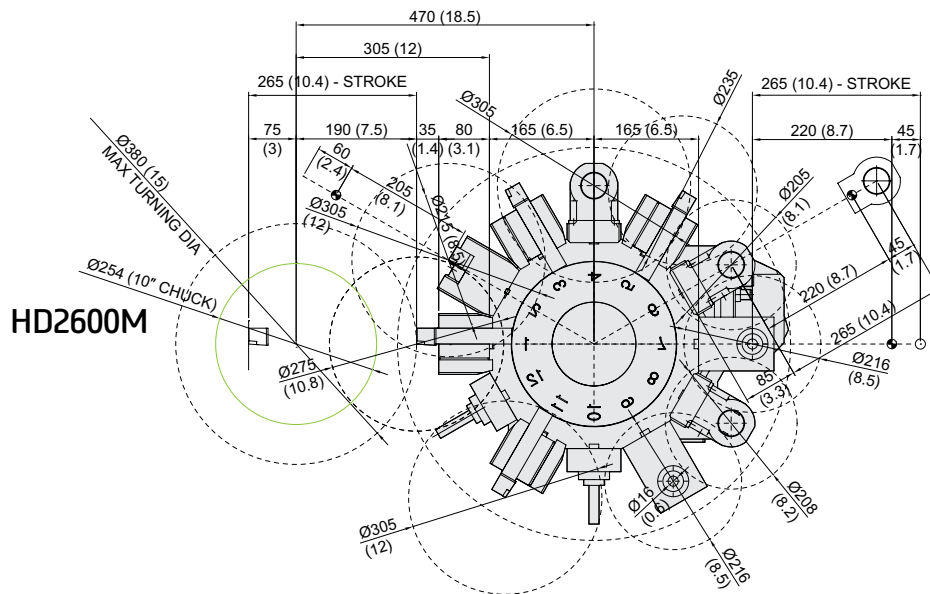
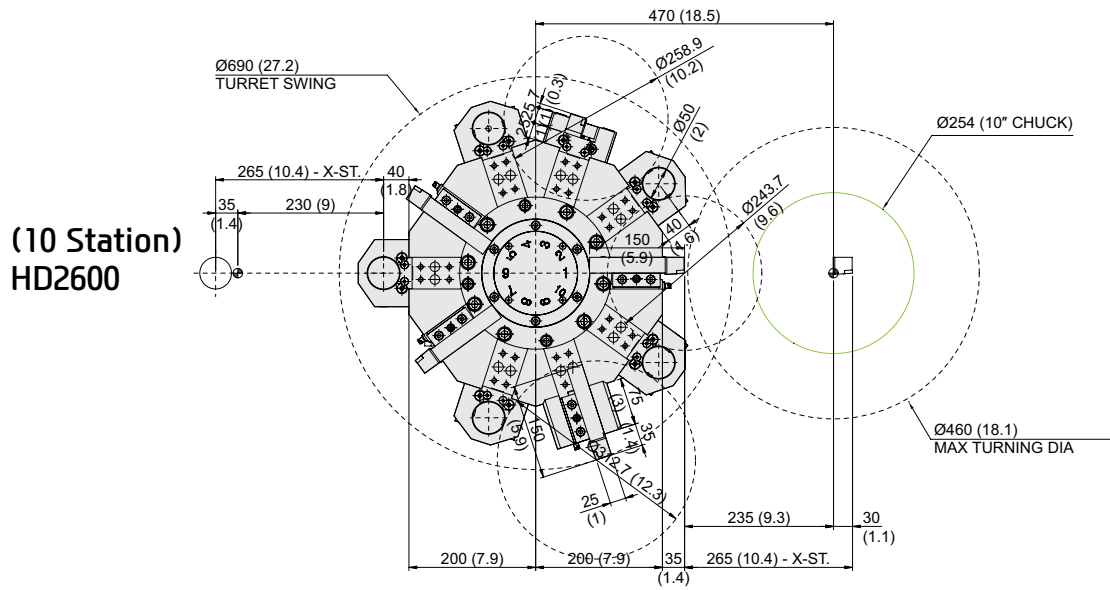
Tooling Parts Detail

ITEM			HD2600M		HD2600LME		HD3100M		HD3100LM	
			mm Unit	inch Unit	mm Unit	inch Unit	mm Unit	inch Unit	mm Unit	inch Unit
Turning Holder	O.D Holder	Right/Left	4	4	4	4	4	4	4	4
	Cutting Holder		-	-	-	-	-	-	-	-
	Facing Holder		1	1	1	1	1	1	1	1
Boring Holder	I.D Holder	Single	3	3	3	3	3	3	3	3
	U-Drill	Cap	1	1	1	1	1	1	1	1
Driven Holder	Straight Mill Holder	Standard	2	2	2	2	2	2	2	2
		TTC	-	-	-	-	-	-	-	-
	Angular Mill Holder	Standard	2	2	2	2	2	2	2	2
		TTC	-	-	-	-	-	-	-	-
Socket	Boring	Ø10 (Ø3/8")	1	1	-	-	-	-	-	-
		Ø12 (Ø1/2")	1	1	1	1	1	1	1	1
		Ø16 (Ø5/8")	1	1	1	1	1	1	1	1
		Ø20 (Ø3/4")	1	1	1	1	1	1	1	1
		Ø25 (Ø1")	1	1	1	1	1	1	1	1
		Ø32 (Ø1 1/4")	1	1	1	1	1	1	1	1
		Ø40 (Ø1 1/2")	-	-	1	1	1	1	1	1
	Drill	MT 1 x MT 2	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 2	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 3	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
		MT 4	-	-	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.
	ER Collet		1 Set	1 Set	1 Set	1 Set	1 Set	1 Set	1 Set	1 Set
	Adapter Set		Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.

SPECIFICATIONS

Interference

unit : mm(in)



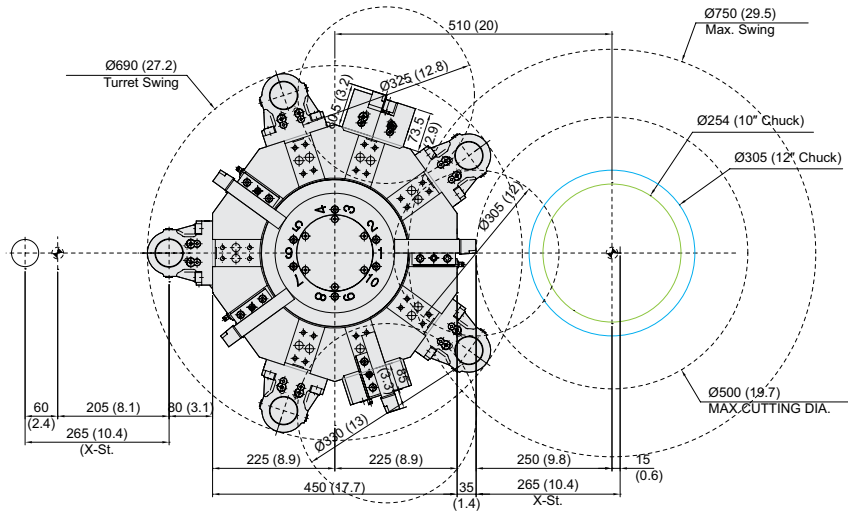
If the tool is positioned differently than the above tooling drawings, the application of the OD Extension holder may interfere with the chuck.

SPECIFICATIONS

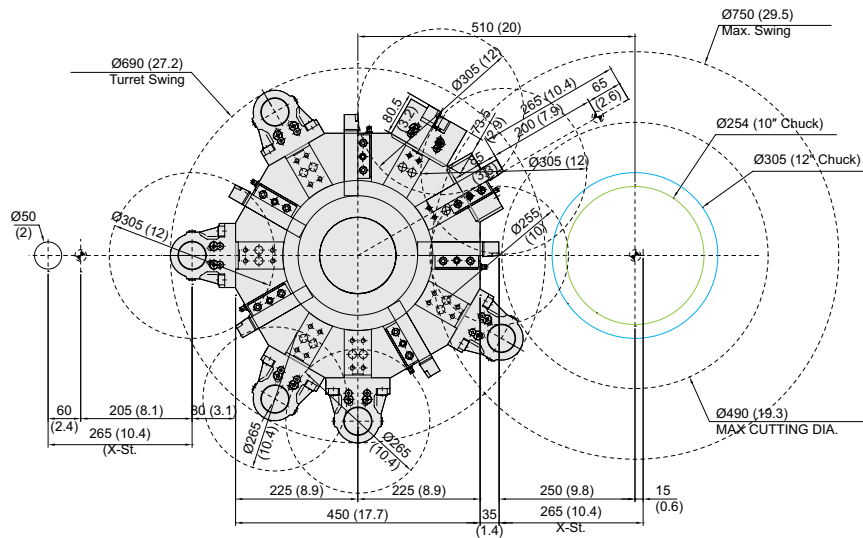
Interference

unit : mm(in)

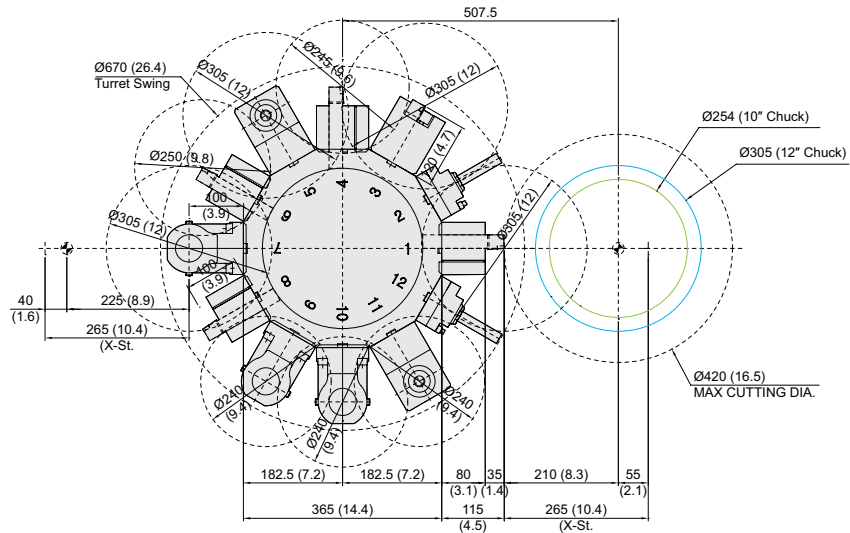
(10 Station)
HD2600LE
HD3100/L



(12 Station)
HD2600LE
HD3100/L



HD2600LME
HD3100M/LM



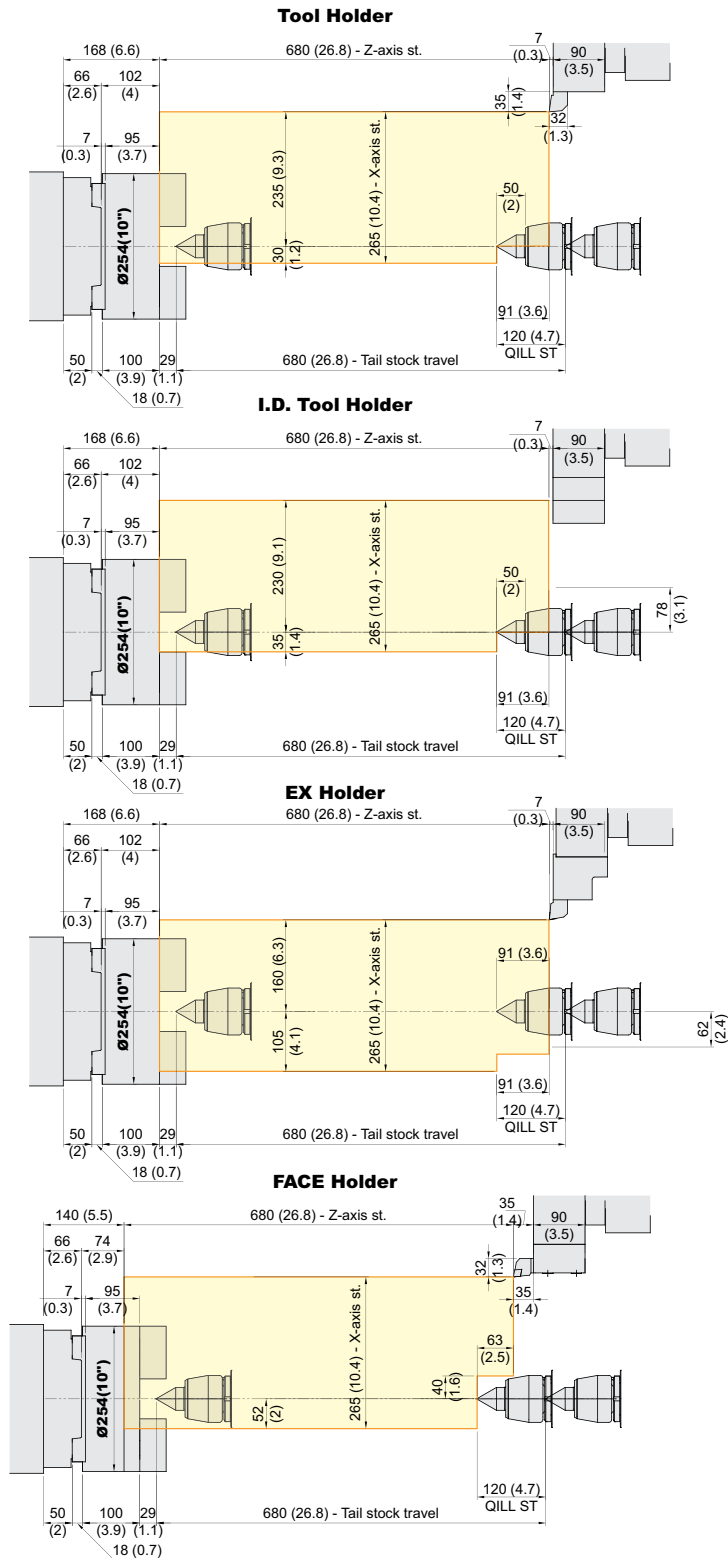
If the tool is positioned differently than the above tooling drawings, the application of the OD Extension holder may interfere with the chuck.

SPECIFICATIONS

Tooling Travel Range

unit : mm(in)

HD2600



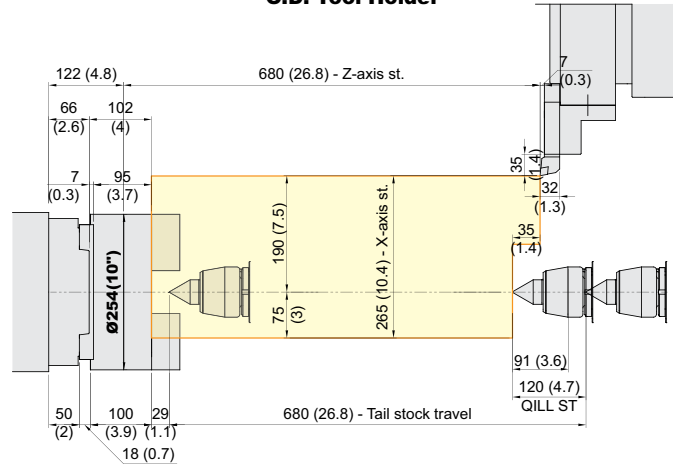
SPECIFICATIONS

Tooling Travel Range

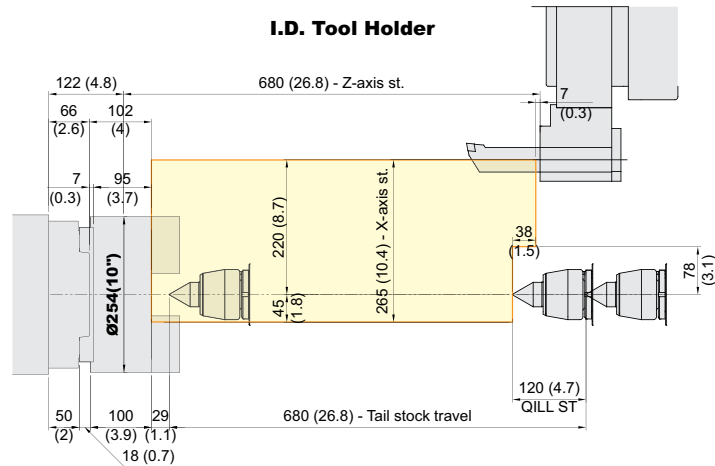
unit : mm(in)

HD2600M

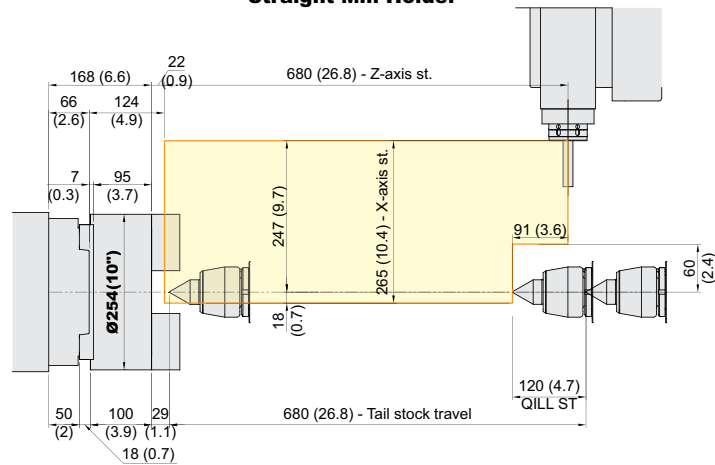
O.D. Tool Holder



I.D. Tool Holder



Straight Mill Holder



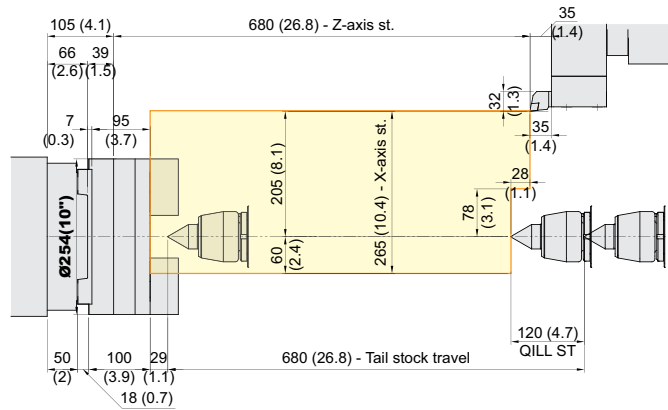
SPECIFICATIONS

Tooling Travel Range

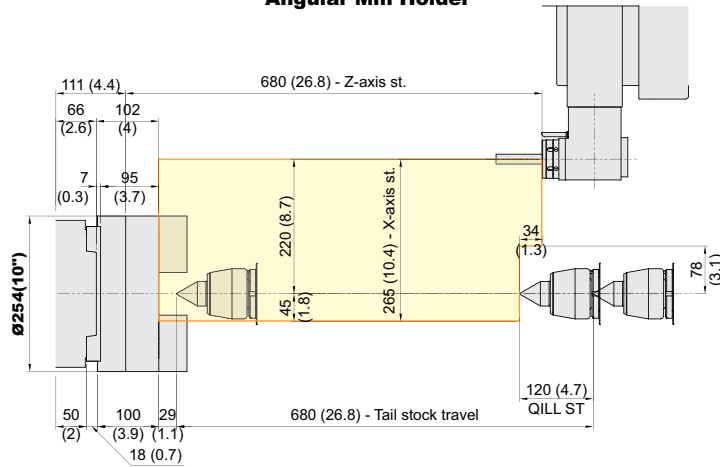
unit : mm(in)

HD2600M

FACE Holder



Angular Mill Holder



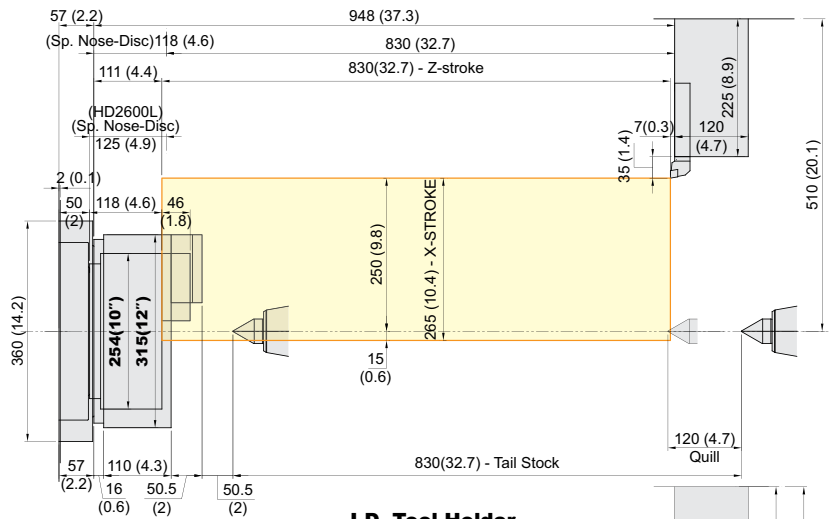
SPECIFICATIONS

Tooling Travel Range

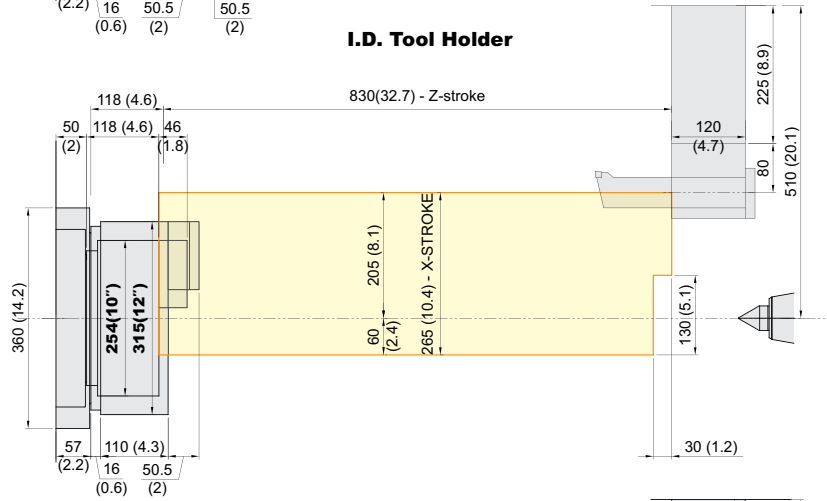
unit : mm(in)

HD2600LE | HD3100

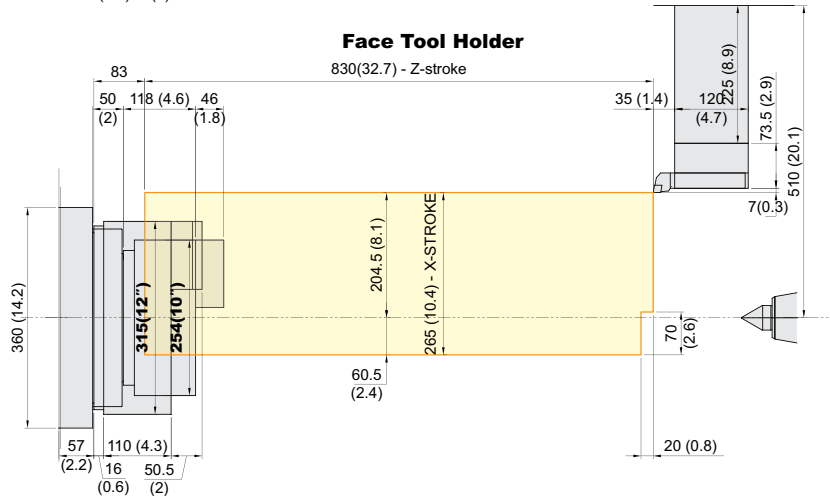
O.D. Tool Holder



I.D. Tool Holder



Face Tool Holder



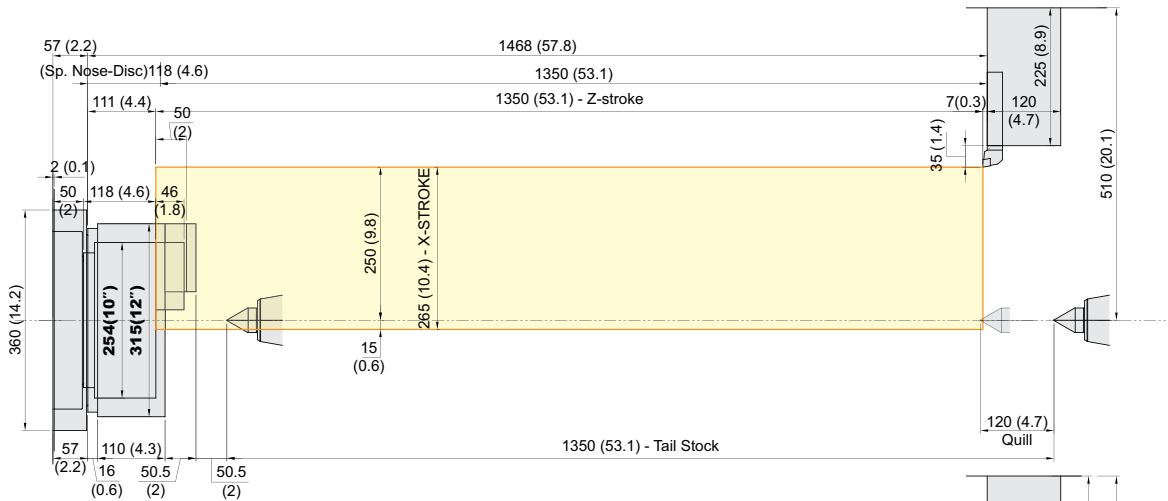
SPECIFICATIONS

Tooling Travel Range

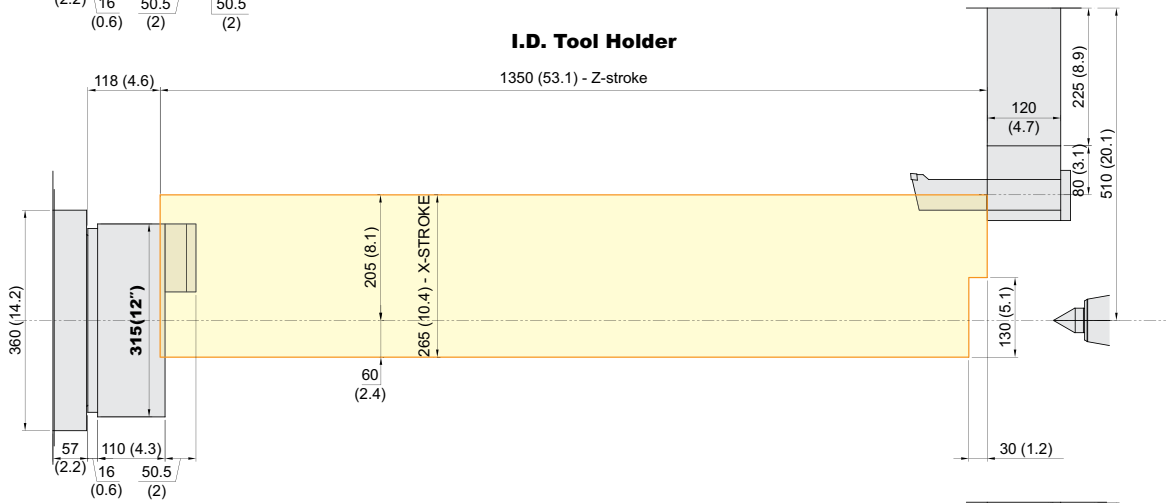
unit : mm(in)

HD3100L

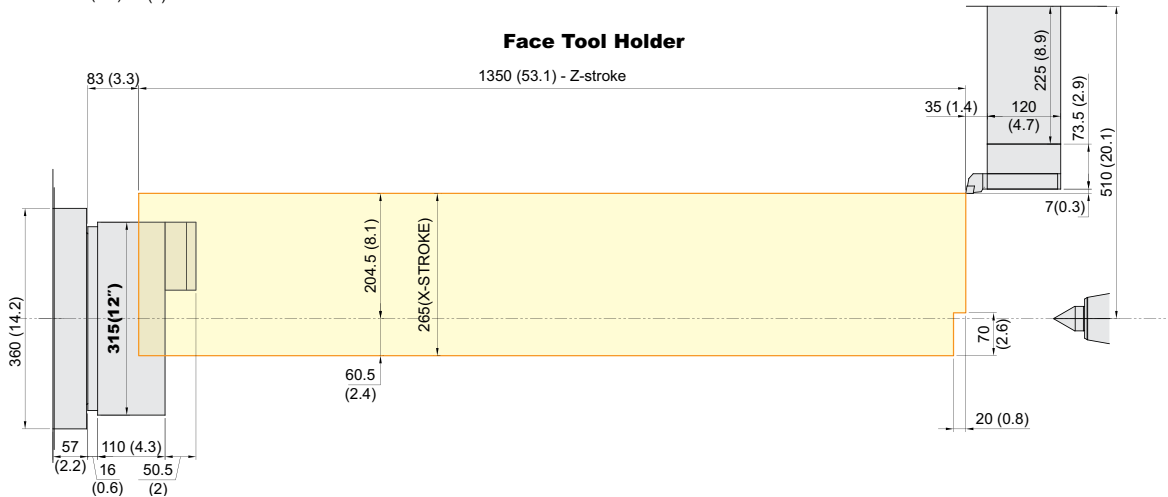
O.D. Tool Holder



I.D. Tool Holder



Face Tool Holder



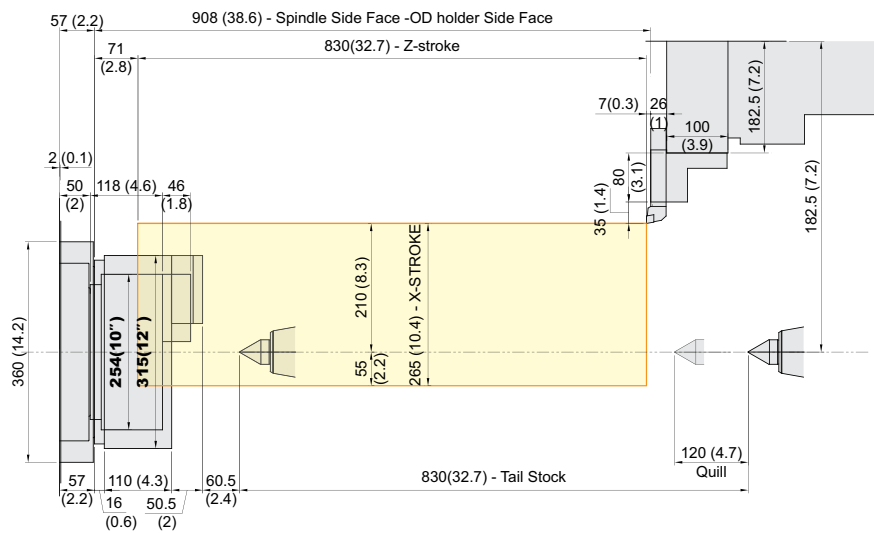
SPECIFICATIONS

Tooling Travel Range

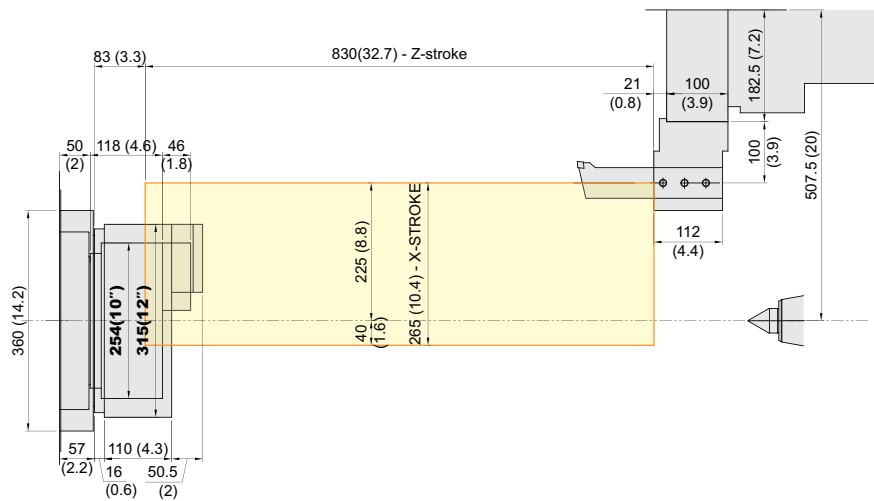
unit : mm(in)

HD2600LME | HD3100M

O.D. Tool Holder



I.D. Tool Holder



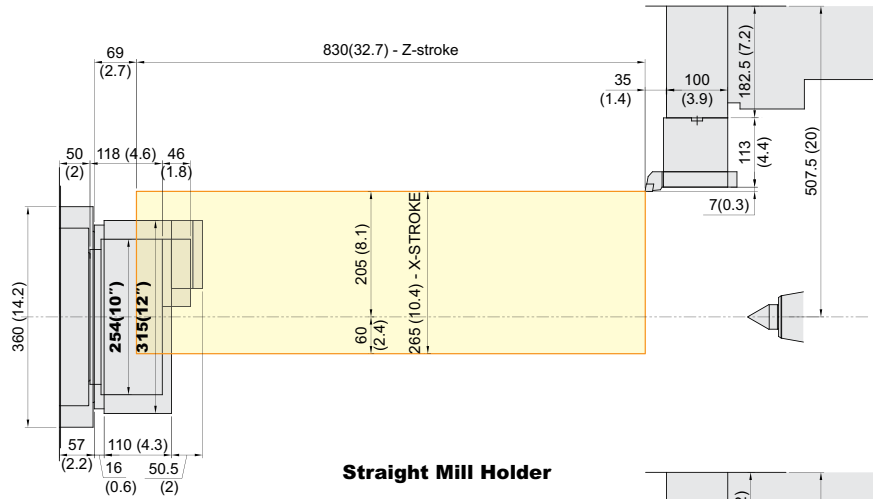
SPECIFICATIONS

Tooling Travel Range

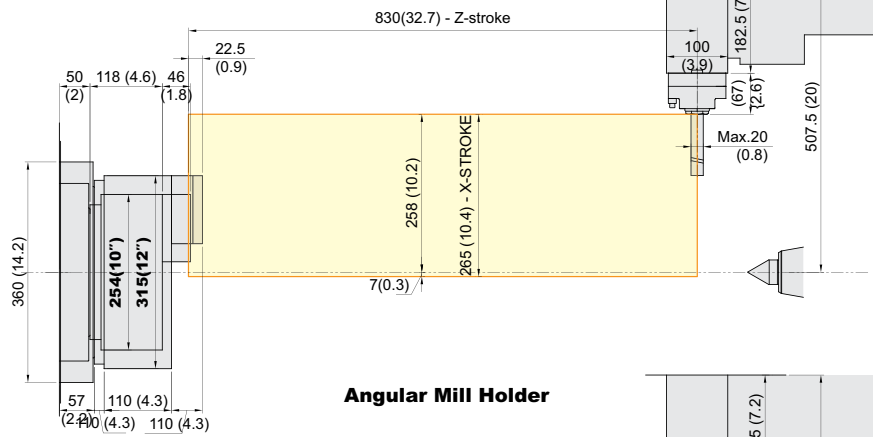
unit : mm(in)

HD2600LME | HD3100M

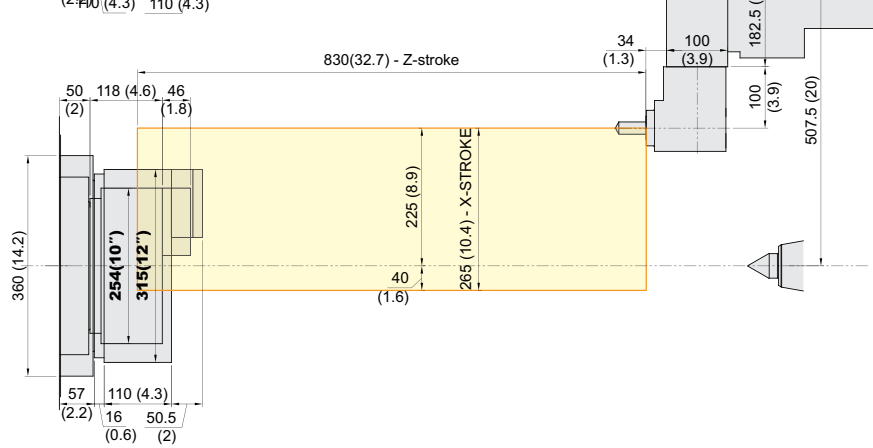
Face Tool Holder



Straight Mill Holder



Angular Mill Holder



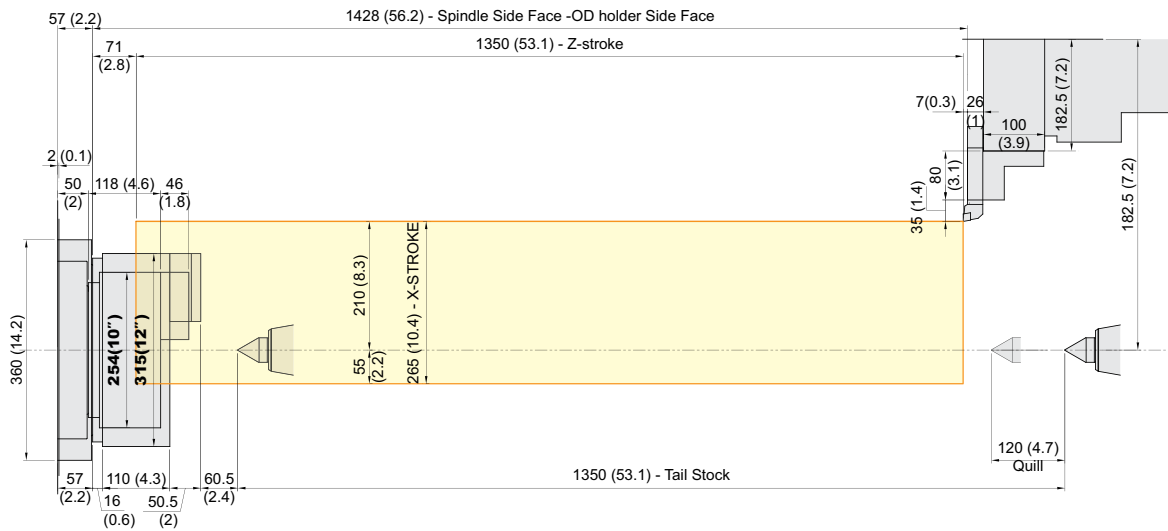
SPECIFICATIONS

Tooling Travel Range

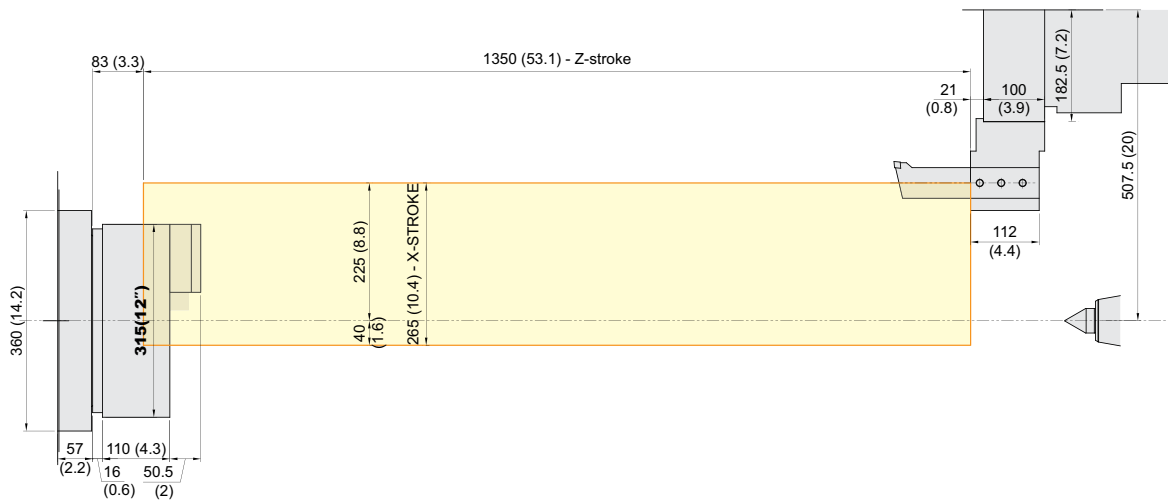
unit : mm(in)

HD3100LM

O.D. Tool Holder



I.D. Tool Holder



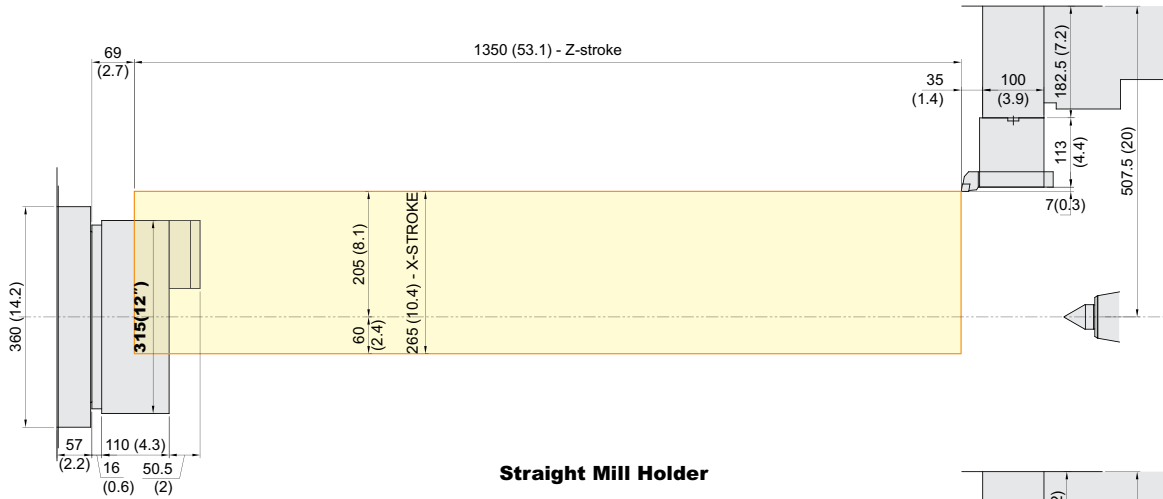
SPECIFICATIONS

Tooling Travel Range

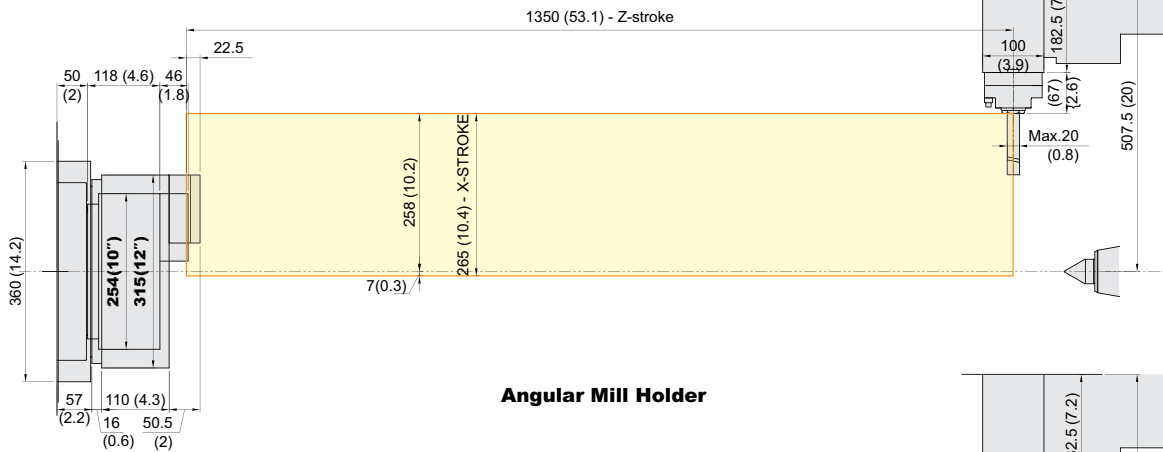
unit : mm(in)

HD3100LM

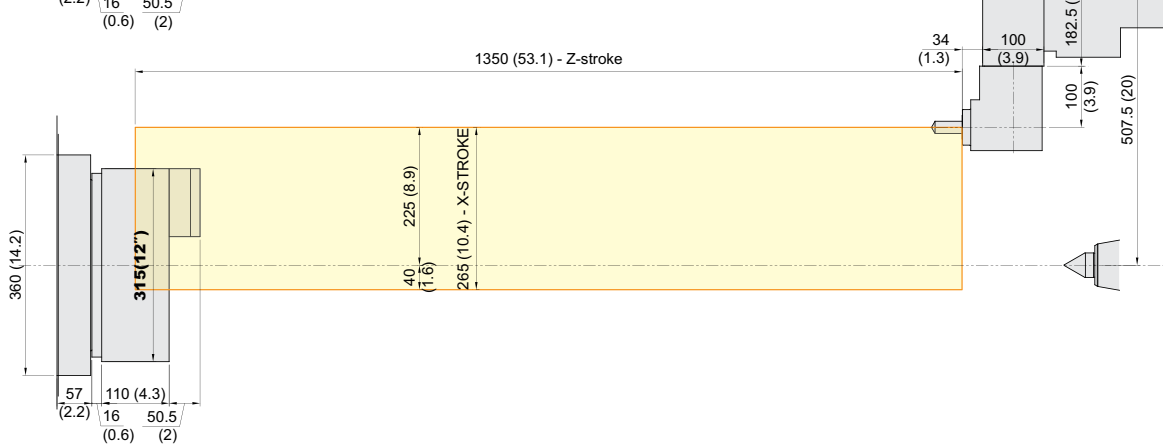
Face Tool Holder



Straight Mill Holder



Angular Mill Holder



SPECIFICATIONS

Specifications

[] : Option

MODEL			HD2600	HD2600LE	HD2600M	HD2600LME
CAPACITY	Swing Over the Bed	mm(in)	Ø630 (24.8")	Ø750 (29.5")	Ø630 (24.8")	Ø750 (29.5")
	Swing Over the Carriage	mm(in)	Ø460 (18.1")	Ø500 (19.7")	Ø460 (18.1")	Ø500 (19.7")
	Max. Turning Dia.	mm(in)	Ø460 (18.1")	Ø500 (19.7")	Ø380 (15")	Ø420 (16.5")
	Max. Turning Length	mm(in)	659 (25.9")	780 (30.7")	613 (24.1")	740 (29.1)
	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			
	Motor (Max/Cont.)	kW(HP)	26/18.5 (34.9/24.8)			
	Torque (Max/Cont.)	N·m(lbf·ft)	734/522 (541.4/385)			
	Spindle Type	-	BELT			
	Spindle Nose	-	A2-8			
	C-axis Indexing	deg	-		0.001°	
FEED	Travel (X/Z)	mm(in)	265/680 (10.4"/26.8")	265/830 (10.4"/32.7")	265/680 (10.4"/26.8")	265/830 (10.4"/32.7")
	Rapid Traverse Rate (X/Z)	m/min(ipm)	24/30 (945/1,181)			
	Slide Type	-	BOX GUIDE			
TURRET	No. of Tools	ea	10 [12]		12	
	Tool Size	OD	□ 25 (□ 1")			
		ID	Ø50 (Ø2")		Ø40 (Ø1.6")	Ø50 (Ø2")
	Indexing Time	sec	0.15			
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-		3.7/2.2 (5/3)	3.7/2.2 (5/3)
	Milling Tool Speed (rpm)	r/min	-		6,000	5,000
	Torque (Max/Cont.)	N·m(lbf·ft)	-		35/21 (25.8/15.5)	47/28 (34.7/20.7)
	Collet Size	mm(in)	-		Ø16 (0.6")(ER25)	Ø25 (1") (ER32)
	Type	-	-		BMT55P	BMT65P
TAIL STOCK	Taper	-	MT#5			
	Quill Dia.	mm(in)	Ø100 (3.9)			
	Quill Travel	mm(in)	120 (4.7")			
	Travel	mm(in)	680 (26.8")	830 (32.7")	680 (26.8")	830 (32.7")
TANK CAPACITY	Coolant Tank	ℓ (gal)	180 (47.6)	200 (52.8)	180 (47.6)	200 (52.8)
	Lubricating Tank	ℓ (gal)	1.8 (0.5)			
POWER SUPPLY	Electric Power Supply	kVA	27			
	Thickness of Power Cable	Sq	Over 16			
	Voltage	V/Hz	220/60 (200/50)			
MACHINE	Floor Space (L×W)	mm(in)	3,400×1,708 (133.9"×37.2")	3,885×1,800 (153"×70.9")	3,400×1,708 (133.9"×37.2")	3,885×1,800 (153"×70.9")
	Height	mm(in)	1,755 (69.1")	1,850 (72.8")	1,755 (69.1")	1,850 (72.8")
	Weight	kg(lb)	5,800 (12,787)	5,950 (13,116)	5,850 (12,897)	6,000 (13,228)
PC	Controller	-	HYUNDAI WIA FANUC i Series			

SPECIFICATIONS

Specifications

[] : Option

MODEL		HD3100	HD3100L	HD3100M	HD3100LM	
CAPACITY	Swing Over the Bed	mm(in)	Ø750 (29.5")			
	Swing Over the Carriage	mm(in)	Ø500 (19.7")			
	Max. Turning Dia.	mm(in)	Ø500 (19.7")		Ø420 (16.5")	
	Max. Turning Length	mm(in)	780 (30.7")	1,300 (51.2")	740 (29.1")	1,260 (49.6")
	Bar Capacity	mm(in)	Ø102 (4")			
SPINDLE	Chuck Size	inch	12"			
	Spindle Bore	mm(in)	Ø115 (4.5")			
	Spindle Speed (rpm)	r/min	2,800 [2,800]			
	Motor (Max/Cont.)	kW(HP)	26/18.5 (34.9/24.8) [35/22 (46.9/29.5)]			
	Torque (Max/Cont.)	N·m(lbf·ft)	1,123/657 (828.3/484.6 [1,613/1,014 (1,189.7/747.9)])			
	Spindle Type	-	BELT [GEAR]		BELT [GEARLESS]	
	Spindle Nose	-	A2-11			
	C-axis Indexing	deg	-		0.001°	
FEED	Travel (X/Z)	mm(in)	265/830 (10.4"/32.7")	265/1,350 (10.4"/53.1")	265/830 (10.4"/32.7")	265/1,350 (10.4"/53.1")
	Rapid Traverse Rate (X/Z)	m/min(ipm)	24/30 (945/1,181)			
	Slide Type	-	BOX GUIDE			
TURRET	No. of Tools	ea	10 [12]		12	
	Tool Size	OD	□ 25 (□ 1")			
		ID	Ø50 (Ø2")			
	Indexing Time	sec	0.15			
LIVE TOOL	Motor (Max/Cont.)	kW(HP)	-		3.7/2.2 (5/3)	
	Milling Tool Speed (rpm)	r/min	-		5,000	
	Torque (Max/Cont.)	N·m(lbf·ft)	-		47/28 (34.7/20.7)	
	Collet Size	mm(in)	-		Ø25 (1") (ER32)	
	Type	-	-		BMT65P	
TAIL STOCK	Taper	-	MT#5			
	Quill Dia.	mm(in)	Ø100 (3.9")			
	Quill Travel	mm(in)	120 (4.7")			
	Travel	mm(in)	830 (32.7")	1,350 (53.1")	830 (32.7")	1,350 (53.1")
TANK CAPACITY	Coolant Tank	ℓ (gal)	200 (52.8)	220 (58.1)	200 (52.8)	220 (58.1)
	Lubricating Tank	ℓ (gal)	1.8 (0.5)			
POWER SUPPLY	Electric Power Supply	kVA	Belt : 30 [Gear : 35]			
	Thickness of Power Cable	sq	Over 16			
	Voltage	V/Hz	220/60 (200/50)			
MACHINE	Floor Space (L×W)	mm(in)	3,885×1,800 (153"×70.9")	4,405×1,978 (173.4"×77.9")	3,885×1,800 (153"×70.9")	4,405×1,978 (173.4"×77.9")
	Height	mm(in)	1,850 (72.8")			
	Weight	kg(lb)	6,000 (13,228)	7,200 (15,873)	6,050 (13,338)	7,250 (15,984)
PC	Controller	-	HYUNDAI WIA FANUC i Series			

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

CONTROLLER

HYUNDAI WIA FANUC i Series

[] : Option

Controlled axis / Display / Accuracy Compensation	
Control axes	2 axes (X, Z) / 3 axes (X, Z, C / X, Z, B) / 4 axes (X, Z, Y, C) 5 axes (X, Z, B, C, A) / 6 axes (X, Z, Y, B, C, A)
Simultaneously controlled axes	2 axes [Max. 4 axes]
Designation of spindle axes	3 axes (1 path)
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 (Rapid traverse / Cutting feed)
Position switch	
LCD / MDI	10.4 inch color LCD
Feedback	Absolute motor feedback
Stored stroke check 1	Over travel
Stored stroke check 2, 3	
PMC axis control	
Operation	
Automatic operation (Memory)	
MDI operation	
DNC operation	Needed DNC software / CF card
Program restart	
Wrong operation prevention	
Program check function	Dry run
Single block	
Search function	Program Number / Sequence Number
Interpolation functions	
Nano interpolation	
Positioning	G00
Linear interpolation	G01
Circular interpolation	G02, G03
Exact stop mode	Single : G09, Continuous : G61
Dwell	G04, 0 ~ 9999.9999 sec
Skip	G31
Reference position return	1st reference : G28 2nd reference : G30 Ref. position check : G27
Thread synchronous cutting	
Thread cutting retract	
Variable lead thread cutting	
Multi / Continuous threading	
Feed function / Acc. & Dec. control	
Manual feed	Rapid traverse Jog : 0~2,000 mm/min (79 ipm) Manual handle : x1, x10, x100 pulses Reference position return
Cutting Feed command	Direct input F code
Feedrate override	0 ~ 200% (10% Unit)
Rapid traverse override	1%, F25%, 50%, 100%
Override cancel	
Feed per minute	G98
Feed per revolution	G99
Look-ahead block	1 block
Program input	
Tape Code	EIA / ISO
Optional block skip	1 ea
Absolute / Incremental program	G90 / G91
Program stop / end	M00, M01 / M02, M30
Maximum command unit	± 999,999.999 mm (± 99,999.9999 inch)
Plane selection	X-Y : G17 / Z-X : G18 / Y-Z : G19
Workpiece coordinate system	G52, G53, 6 pairs (G54 ~ G59)
Manual absolute	Fixed ON
Programmable data input	G10
Sub program call	10 folds nested
Custom macro	#100 ~ #199, #500 ~ #999
G code system	A
Programmable mirror image	G51.1, G50.1
G code preventing buffering	G4.1
Direct drawing dimension program	Including Chamfering / Corner R

Program input	
Multiple repetitive cycles	I, II
Canned cycle for turning	
Auxiliary function / Spindle speed function	
Auxiliary function	M 4 digit
Level-up M Code	High speed / Multi / Bypass M code
Spindle speed function	S 4 digit, Binary output
Spindle override	0% ~ 150% (10% Unit)
Multi position spindle orientation	M 19 (S_ _ _)
Rigid tapping	
Constant surface speed control	G96, G97
Tool function / Tool compensation	
Tool function	T 2 digit + Offset 2 digit
Tool life management	
Tool offset pairs	128 pairs
Tool nose radius compensation	G40, G41, G42
Geometry / Wear compensation	
Direct input of offset measured B	
Editing function	
Part program storage size	1280m (512KB)
No. of registerable programs	1000 ea
Program protect	
Background editing	
Extended part program editing	Copy, move and change of NC program
Memory card program edit	
Data input / output & Interface	
I/O interface	RS 232C serial port, CF card, USB memory Embedded Ethernet interface
Screen hard copy	
External message	
External key input	
External workpiece number search	
Automatic data backup	
Setting, display and diagnosis	
Self-diagnosis function	
History display & Operation	Alarm & Operator message & Operation
Run hour / Parts count display	
Maintenance information	
Actual cutting feedrate display	
Display of spindle speed / T code	
Graphic display	
Operating monitor screen	Spindle / Servo load etc.
Power consumption monitoring	Spindle & Servo
Spindle / Servo setting screen	
Multi language display	Support 20 languages
Display language switching	Selection of 5 optional Languages
LCD Screen Saver	Screen saver
Unexpected disturbance torque	BST (Back spin torque limit)
Function for machine type	
Cs contour control (C & A 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
Canned cycle for drilling	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Spindle orientation expansion	MS, SY TTS, TTMS, TTSY
Spindle synchronous control	MS, SY TTS, TTMS, TTSY
Torque control	MS, SY TTS, TTMS, TTSY
Y axis offset	Y, SY, TTSY
Arbitrary angular control	Y, SY, TTSY
Composite / Superimposed control	MS, SY TTS, TTMS, TTSY
Balance cutting	MS, SY TTS, TTMS, TTSY
Option	
Fast ethernet	Needed option board
Data server	Needed option board
Protection of data at 8 levels	
Tool offset pairs	200 pairs
Part program storage size	5120m (2MB)
Polygon turning (2 Spindles)	Mill, MS, Y, SY, LF-Mill, TTMS, TTSY
Helical interpolation	
Manual Guide i	Conversational auto program
Dynamic graphic display	

Figures in inch are converted from metric values.

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

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