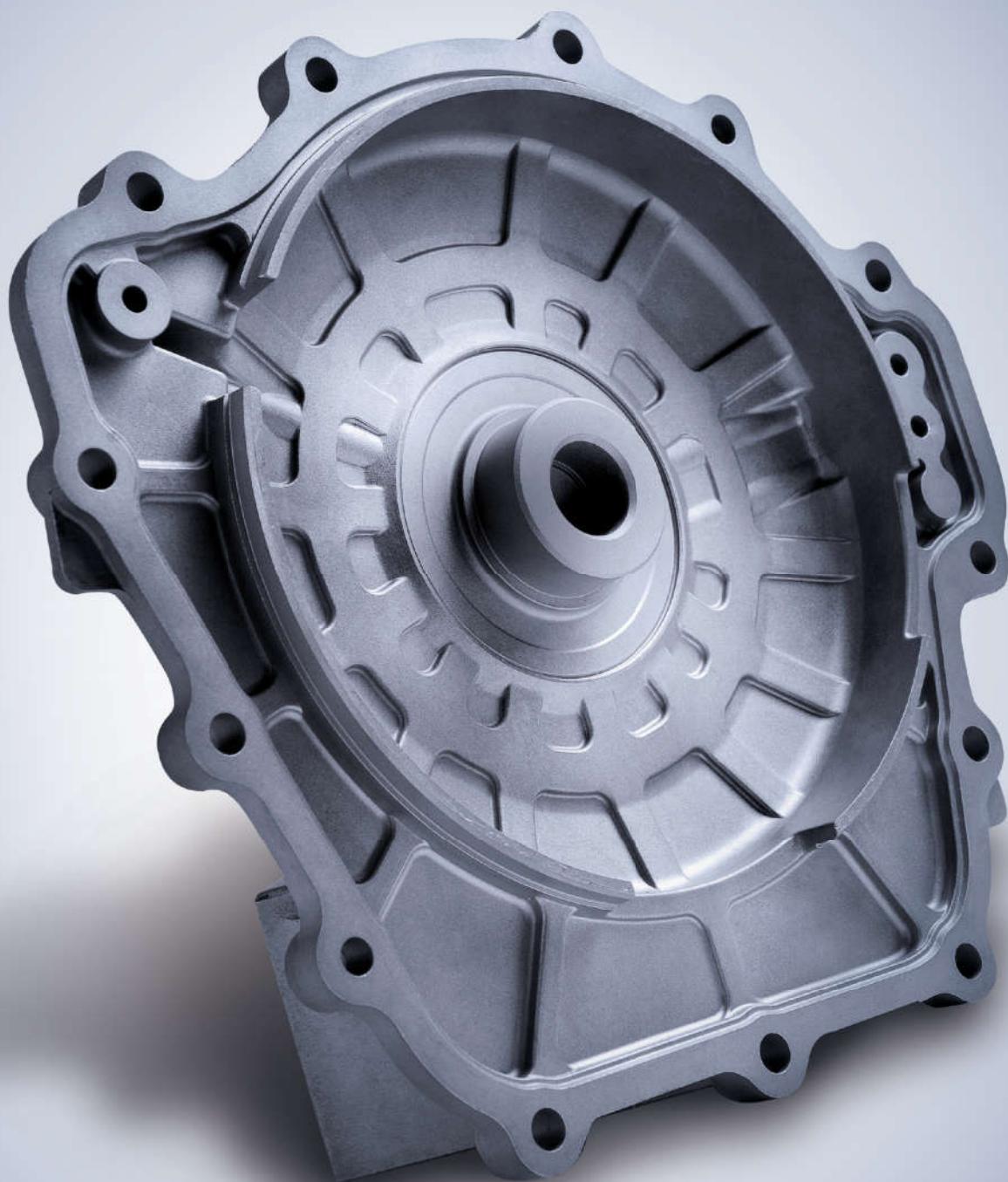




Hi-TECH 200

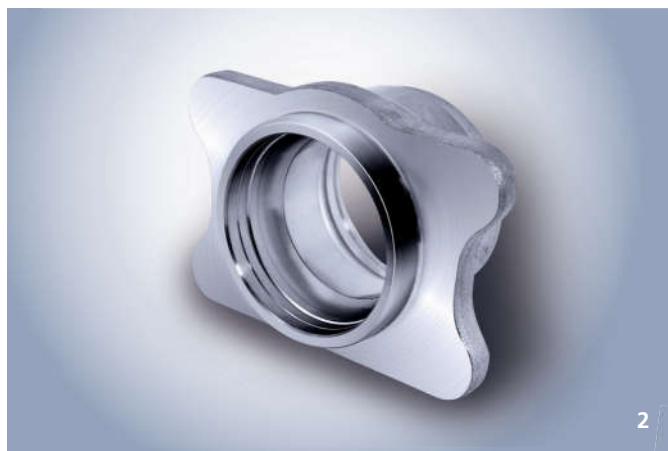
8"-10" Chucker Box Way type
Horizontal Turning Center



8"-10" BOX WAY TYPE HORIZONTAL TURNING CENTER

Hi-TECH 200 is a highly customizable turning center with a fast turret indexing time of 0.15sec/step and the feedrate of 30m/min; and with many optional components, HI-TECH 200 is capable of handling the most demanding machining needs very efficiently.

1 Rear Cover/Automobile/ADC12 **2** Bearing Outer Ring/Automobile/STB2
3 Flange/Automobile/SM45C **4** Output Shaft/Automobile/SCM920HVS1 **5** Synchronize Hub/Automobile/SMF9060M

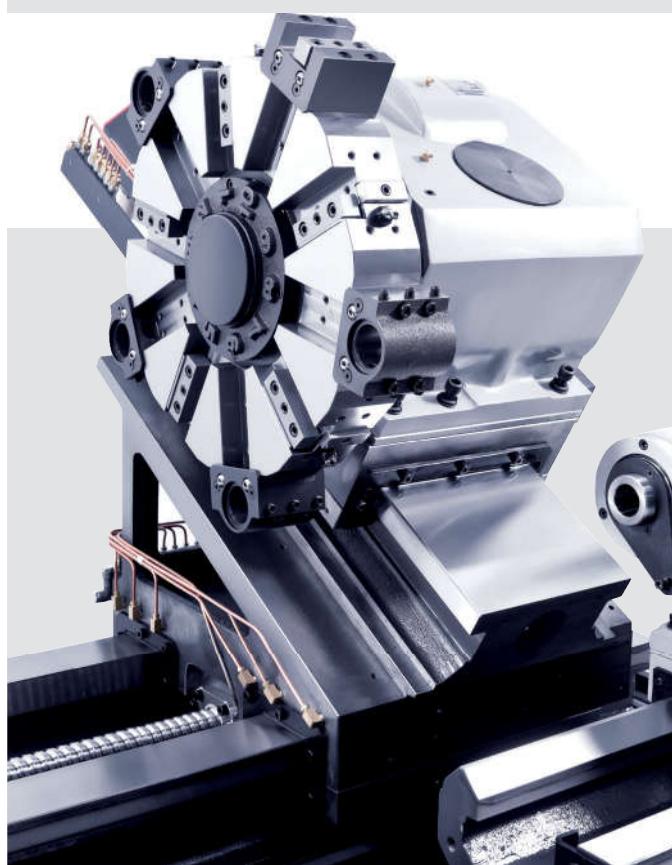


VARIETY SPECIFICATIONS FOR CUSTOMER NEEDS

Customizable

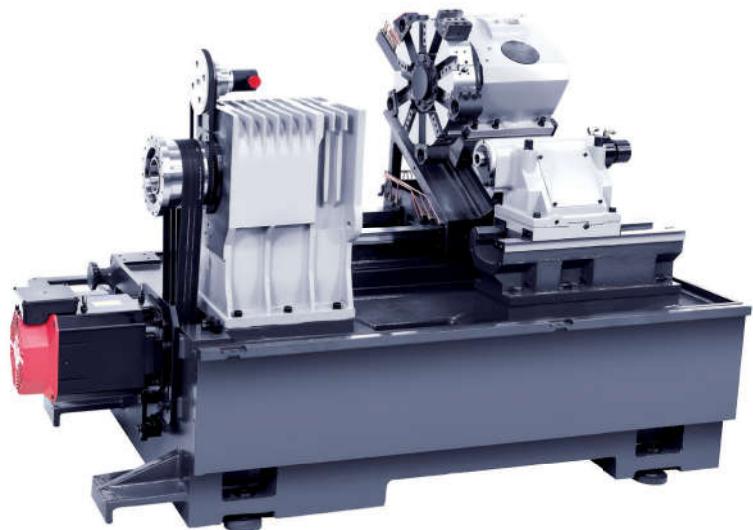
Customize Hi-TECH 200 with many different spindle sizes to fit your work. Its small footprint and rigid box way structure will deliver quality and precision after hours and hours of non-stop operation.





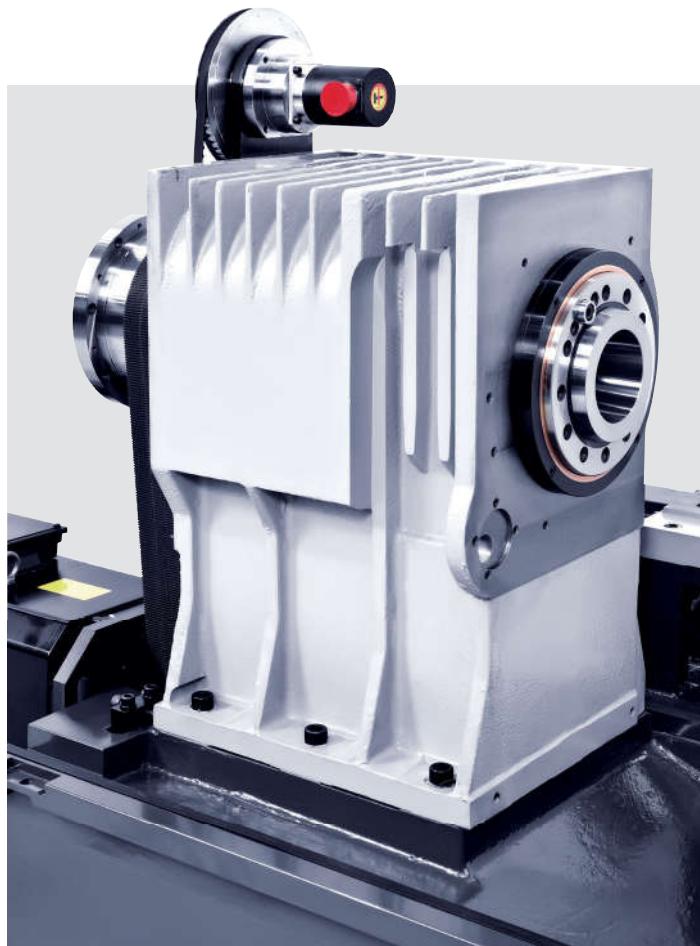
Extra Rigid Single Frame Structure

Hi-TECH 200 has an integrated unibody bed frame to minimize heat distortion, and the precision-polished wide guide surface and the ultra-durable bed absorb vibration sufficiently, to assure high degree of machining precision. All guide surfaces incorporate box way design to maintain rigidity and accuracy after prolonged operation.



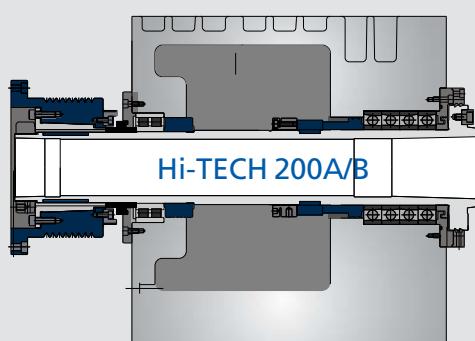
Tough, Rigid Indexing Turret

Hi-TECH 200's turret provides a fast index time of 0.15sec/step and a massive clamping force of 4,300kg_f(9,480lb_f). The spindle indexing is performed by a powerful AC servo motor—making Hi-TECH 200 perfect for different machining tasks including milling, tapping, and drilling.



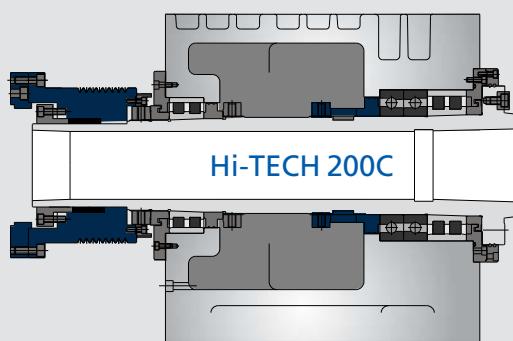
High Performance Spindle

The Hwacheon clean room assembly facility, where these super-precision, super-speed spindles are manufactured, maintains optimal temperature and humidity, and is kept free of any foreign substances. Only the most skilled master engineers are allowed in the assembly facility, to build only the best equipment under the toughest quality standard in the industry.



Front: Ac Ball Bearing x 4

Rear: Roller Bearing x 1



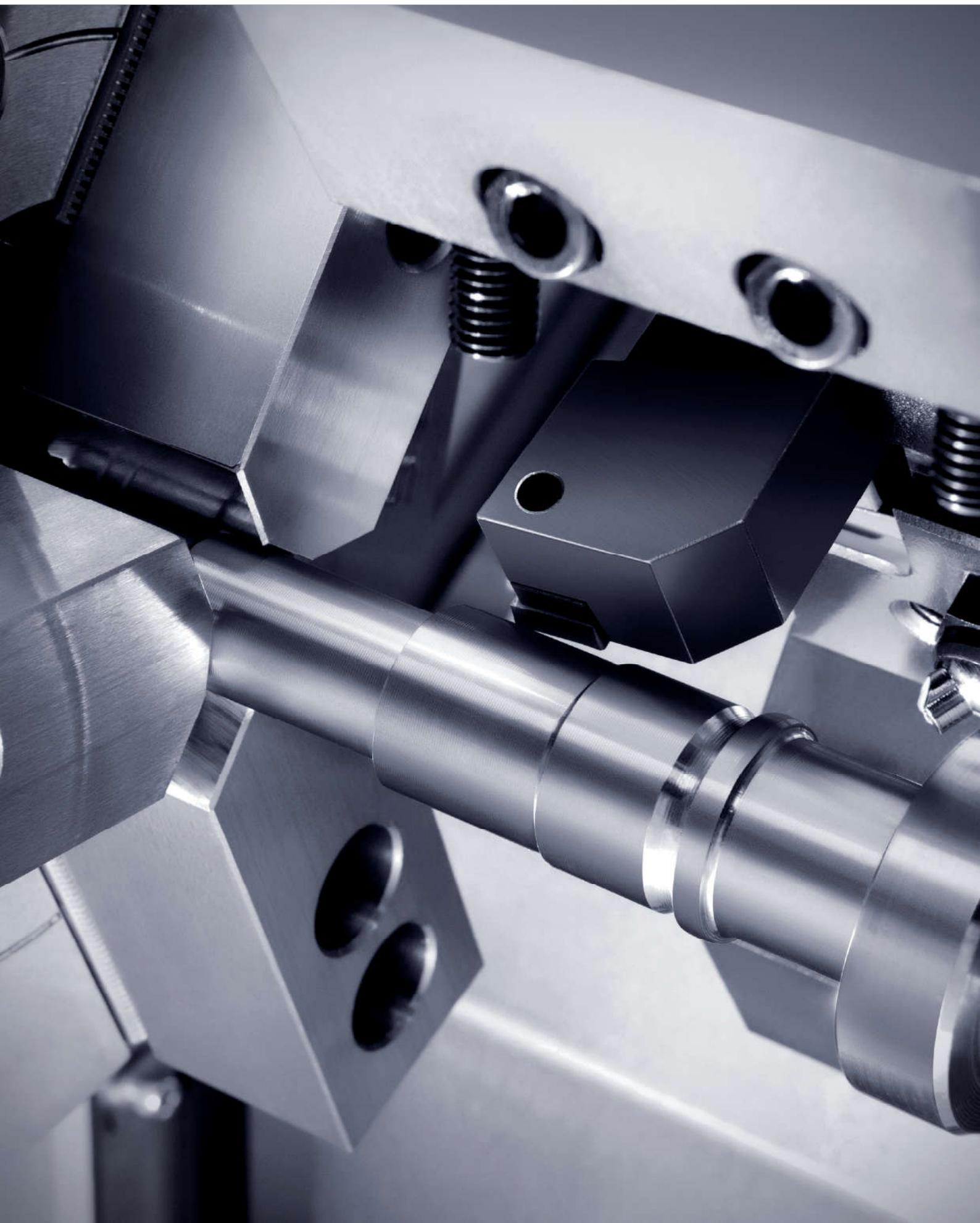
Front: AC Ball Bearing x 2+Roller Bearing x 1

Rear: Roller Bearing x 1

Spindle Options

Choose the right equipment for your tasks.

	200A	200B	200C
Chuck Size (inch/mm)	8"/200	10"/250	10"/250
Spindle Nose (ASA)	A2-6	A2-6	A2-8
Max. Spindle Speed (rpm)	5,000	3,500	3,500
Max. Bar Size (mm/inch)	Ø51 / 2"	Ø65 / 2.55"	Ø76 / 3"



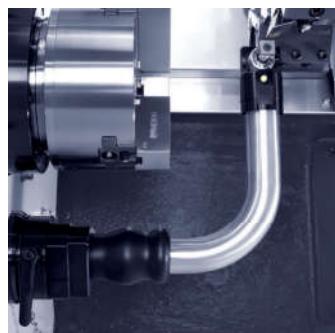
USER FRIENDLY DESIGN, A WIDE RANGE OF OPTIONAL FEATURES

Hi-TECH 200 is designed to be user friendly, so you can concentrate on what you do best: creating quality products—without losing your valuable time to the worries of machine failure and safety. A wide variety of performance upgrade options are available for faster, more precise machining.



Parts Catcher (Option)

The parts catcher dissipates the scrap materials left over after machining—to make your work safer and more time efficient.



Manual Tool Presetter (Option)

The tool presetter employs a highly accurate sensor to precisely compute for the coordinate settings in less than 15 seconds per tool. Different tool shapes and their tolerance values are entered automatically for the coordinate calculations.

L-HTLD: Hwacheon Lathe Tool Load Detect System (Option)



The Hwacheon Lathe Tool Load Detect System constantly detects and diagnoses the tool load under a process to prevent tool wear and damage, and to keep your machine and tools in optimal shape.

Load Detection Limit 1

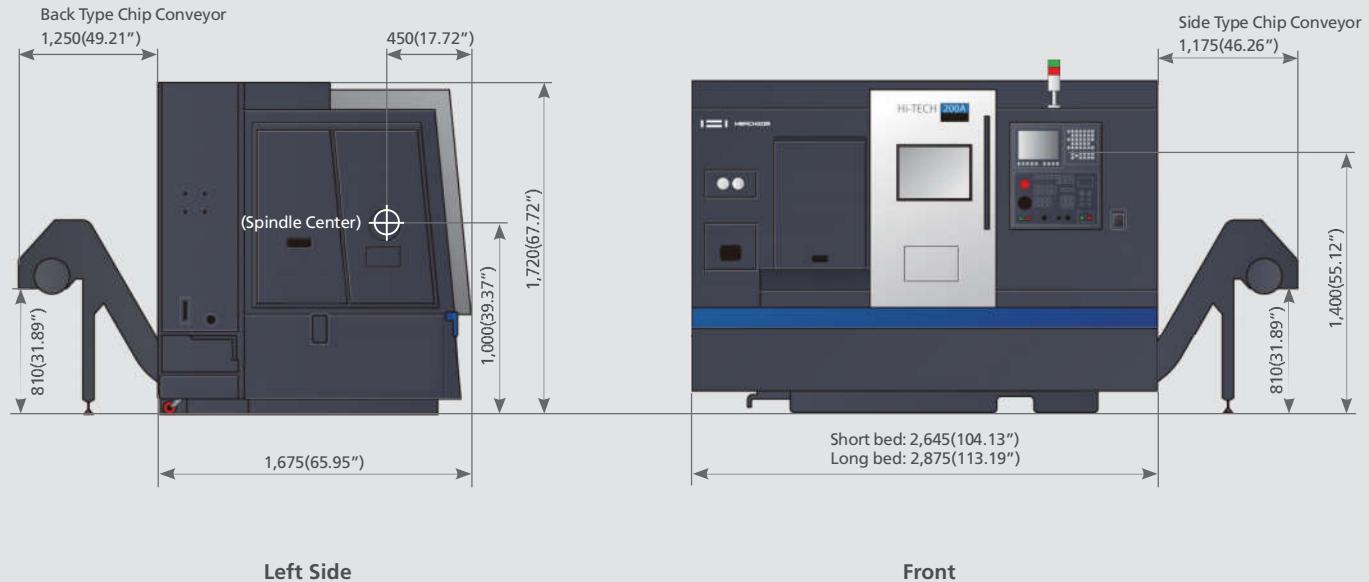
- Alarm + Feed Hold
- > When the LIMIT 1 Alarm sounds, the system holds the feed and the machine goes into standby.

Load Detection Limit 2

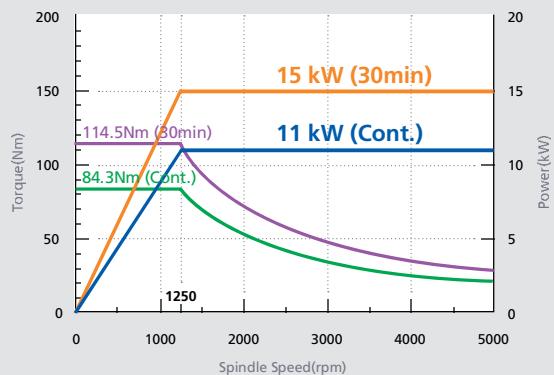
- Alarm + Machine Stop
- > When the LIMIT 2 Alarm sounds, the system stops the machine, and must be reset to operate it.

Product Data

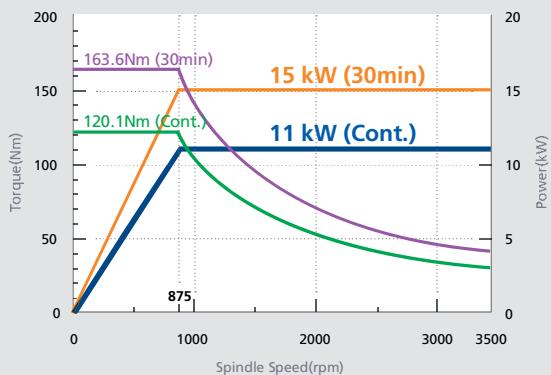
* Unit: mm(inch)

**Spindle Power-Torque Diagram**

Hi-TECH 200A



Hi-TECH 200B/C

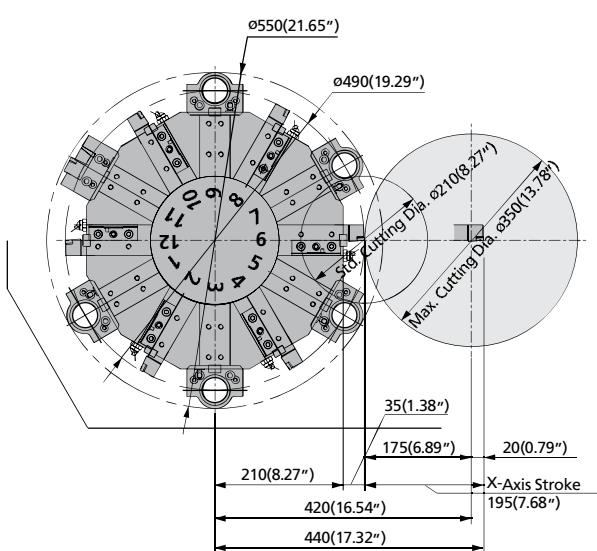


Tool Interference Diagram

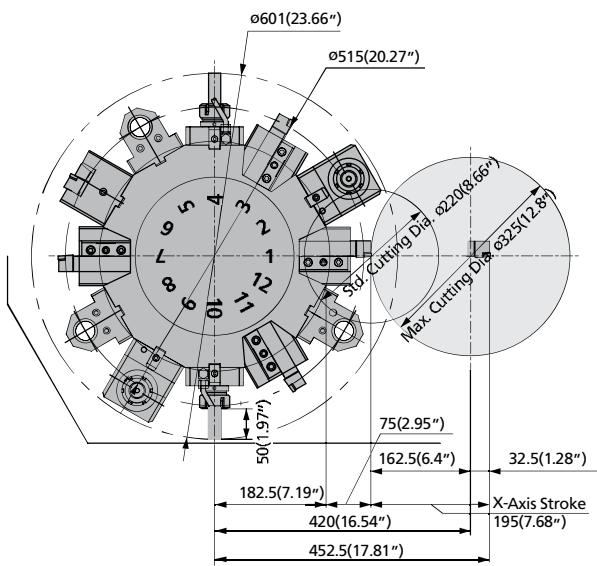
※ Unit: mm(inch)

Hi-TECH 200A/B

STD

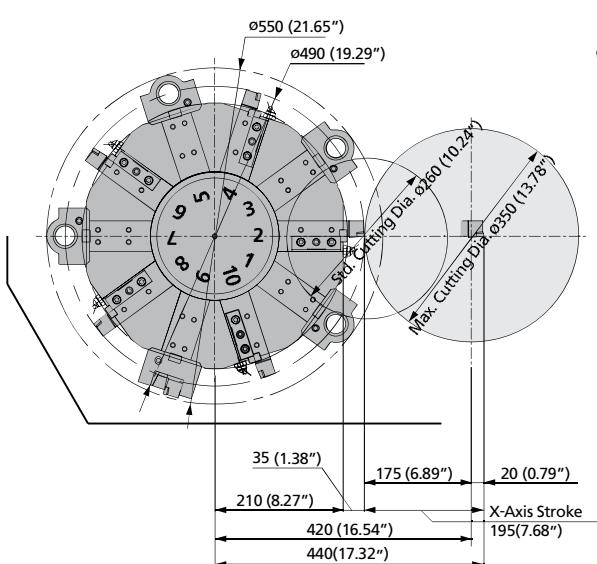


MC

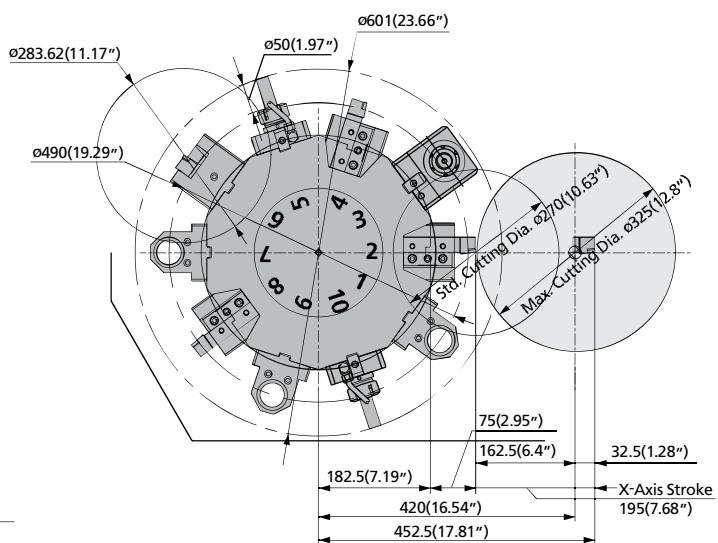


Hi-TECH 200C

STD



MC



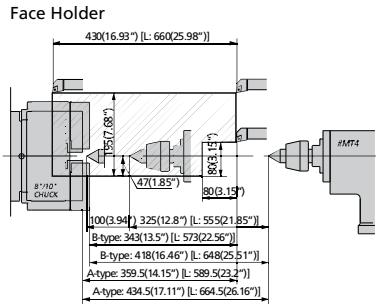
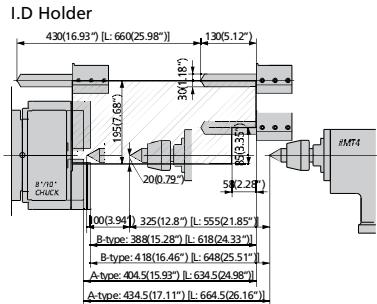
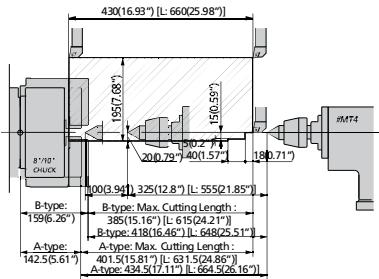
Moving Range

※Unit:mm(inch), [L] : Long Type

Hi-TECH 200A/B

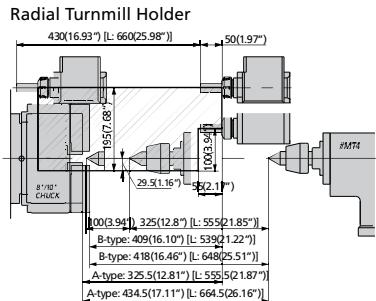
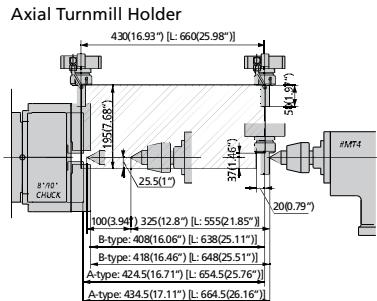
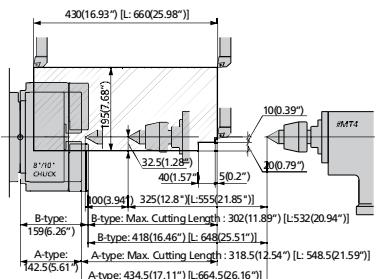
STD

O.D Holder



MC

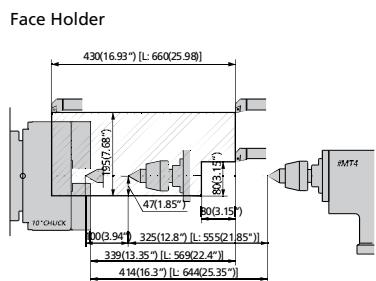
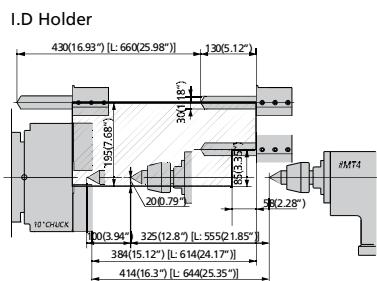
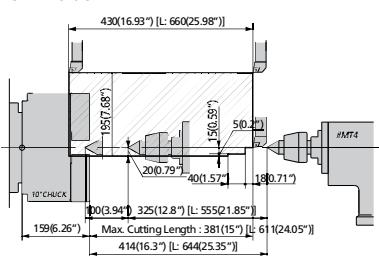
O.D Holder



Hi-TECH 200C

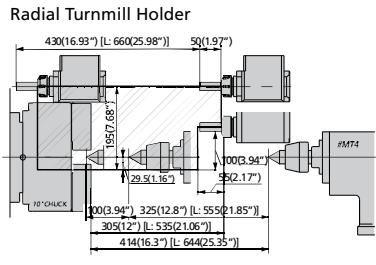
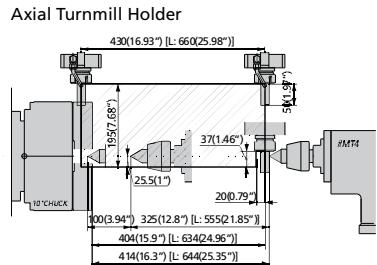
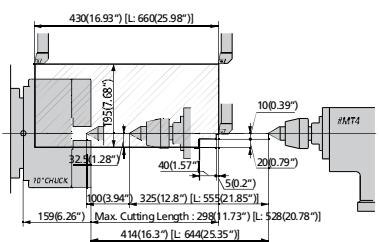
STD

O.D Holder



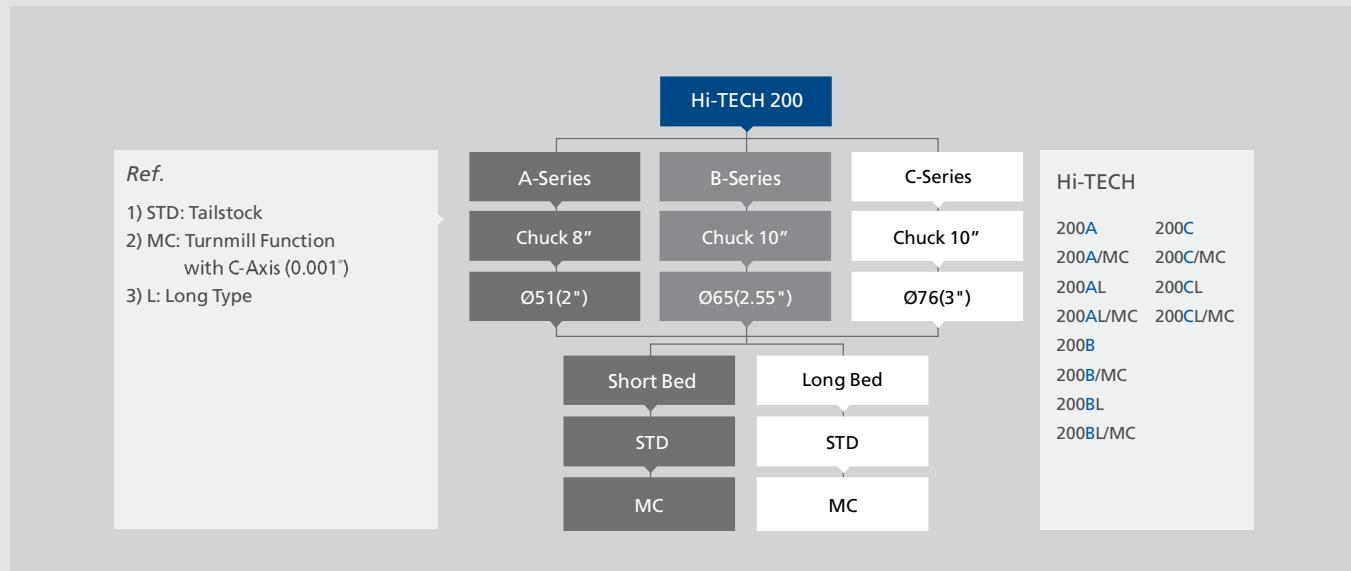
MC

O.D Holder



Product Configuration

Each product can be configured to fit your application.



Machine Specifications

ITEM	Hi-TECH 200 SERIES						
	200A[L]	200A/MC[L]	200B[L]	200B/MC[L]	200C[L]	200C/MC[L]	
Capacity							
Swing over Bed	mm (inch)		Ø500 (19.69")				
Max. Cutting Diameter	mm (inch)	Ø350 (13.78")	Ø325 (12.8")	Ø350 (13.78")	Ø325 (12.8")	Ø350 (13.78")	Ø325 (12.8")
Standard Cutting Diameter	mm (inch)	Ø210 (8.27")	Ø220 (8.66")	Ø210 (8.27")	Ø220 (8.66")	Ø260 (10.24")	Ø270 (10.63")
Max. Cutting Length	mm (inch)	401.5 (15.81") [631.5 (24.86")]	318.5 (12.54") [548.5 (21.59")]	385 (15.16") [615 (24.21")]	302 (11.89") [532 (20.94")]	381 (15") [611 (24.05")]	298 (11.73") [528 (20.78")]
Chuck Size	inch	8"		10"		10"	
Spindle							
Type of Spindle Nose	ASA		A2-6			A2-8	
Max. Spindle Speed	rpm	5,000			3,500		
Through Spindle Hole Diameter	mm (inch)		Ø75 (2.95")			Ø90 (3.54")	
Max. Bar Size	mm (inch)	Ø51 (2")		Ø65 (2.56")		Ø76 (3")	
Spindle Bearing Inner Diameter	mm (inch)		Ø100 (3.94")			Ø130 (5.12")	
Spindle Motor	kW (HP)			15 / 11 (20 / 15)			
Turret							
Number of Tool Station	ea		12			10	
Tool Size	mm (inch)			Ø25 x Ø40 (Ø1" x Ø1.5")			
Turret Indexing Time	sec / step			0.15			
Axes							
Rapid Speed (X/Z)	m/min (ipm)		30 / 30 (1,181 / 1,181)				
Max. Stroke (X/Z)	mm (inch)		195 / 430 (7.68" / 16.93") [195/660 (7.68"/25.98")]				
Feed Motor (X/Z)	kW (HP)	1.6 / 3.0 (2.2 / 4)	3.0 / 3.0 (4 / 4)	1.6 / 3.0 (2.2 / 4)	3.0 / 3.0 (4 / 4)	1.6 / 3.0 (2.2 / 4)	3.0 / 3.0 (4 / 4)
Tailstock							
Quill Dia.	mm (inch)		Ø80 (3.15")				
Quill Stroke	mm (inch)		Ø100 (3.94")				
Taper Hole	MT		# 4				
Turnmill (Opt.)							
Spindle Motor	kW (HP)	-	3.7 / 2.2 (5 / 3)	-	3.7 / 2.2 (5 / 3)	-	3.7 / 2.2 (5 / 3)
Max. Spindle Speed	rpm	-	5,000	-	5,000	-	5,000
Max. Drill/Tap Size	mm	-	Ø16 (0.63") / M12	-	Ø16 (0.63") / M12	-	Ø16 (0.63") / M12
Min. Index Angle	°(deg)	-	0.001°	-	0.001°	-	0.001°
Tank Capacity							
Lubrication	l (gal)		12 (3.17)				
Hydraulic	l (gal)		11 (2.9)				
Coolant	l (gal)		150 (40) [180 (48)]				
Power Sources							
Electrical Power Supply	kVA		30				
Dimension							
Height	mm (inch)		1,720 (67.72")				
Floor Space (LxW)	mm (inch)		2,645 x 1,675 (104.13" x 65.95") [2,875 x 1,675 (113.19" x 65.95")]				
Weight	kgf(lb _f)	4,200 (9,260) [4,500 (9,920)]	4,350 (9,590) [4,650 (10,251)]	4,200 (9,260) [4,500 (9,920)]	4,350 (9,590) [4,650 (10,251)]	4,200 (9,260) [4,500 (9,920)]	4,350 (9,590) [4,650 (10,251)]
NC Controller							
Fanuc 0i-TF							

* []: Long Type

Standard and Optional Product Components

Standard Accessories		Optional Accessories	
• Coolant System (Separated Coolant Tank)	• Set Of Soft Jaws	• Air Blower	• Set of Hard Jaws
• Door Interlock	• Signal Lamp (R, G)	• Air Gun	• Siemens Controller (828D)
• Foot Switch	• Tailstock (MT#4) (Manual)	• Auto Door	• Signal Lamp (R, G, Y)
• Hydraulic Unit 40kgf/cm ²	• Tool Kit & Box	• Bar Feeder Interface	• Steady Rest - Long Bed Type
• Hydraulic Chuck & Cylinder	• Tooling System	• Chip Conveyor & Box, Side / Back Type	• Tool Life Management
- Hi-TECH 200A: 8"	• Turret with 12 Station (C-Type: 10 Station)	• Chuck Dual Pressure System	• Tool Presetter (manual)
- Hi-TECH 200B / C : 10"	• Work Light	• Chuck Pressure Check Switch	• Tool & Work Counter, External Type / Internal Type
• Leveling Bolt & Plate	• 10.4" Color LCD	• Chuck Pressure Compensation	• Transformer
• Manual Guide i		• Coolant Gun	• Turnmill Holder (Axial / Radial)
• Operation Manual & Part List		• High Pressure Pump, 6 Bar / 15Bar	• Turnmill & C-Axis Indexing (0.001°)
		• L-HTLD (Lathe-Hwacheon Tool Load Detect)	• U-Drill Holder
		• NC Cooler	• 15" Color LCD (only FANUC)
		• Parts Catcher	

NC Specifications [Fanuc 0i-TF]

ITEM	SPECIFICATION	STD	MC	ITEM	SPECIFICATION	STD	MC	
Controlled axis								
Controlled axis (Cs axis)	2-Axes	2-Axes	3-Axes	Program input				
Simultaneously controlled axes	2-Axes	2-Axes	3-Axes	Tape code	EIA / ISO	S	S	
Least input increment	0.001 mm, 0.001 deg, 0.0001 inch	S	S	Optional block skip	9ea	S	S	
Least input increment 1/10	0.0001 mm, 0.0001 deg, 0.00001 inch	O	O	Program number	O4-Digits	S	S	
inch/metric conversion	G20, G21	S	S	Sequence number	N8-Digits	S	S	
Stored stroke check 1,2,3		S	S	Decimal point programming		S	S	
Chamfering on/off		S	S	Coordinate system setting	G50	S	S	
Backlash compensation		S	S	Coordinate system shift		S	S	
Operation								
Automatic & MDI operation		S	S	Workpiece coordinate system	G54-G59	S	S	
Program number search		S	S	Workpiece coordinate system preset	G92.1	S	S	
Sequence number search		S	S	Direct drawing dimension programming		S	S	
Dry run, single block		S	S	G code system	A	S	S	
Manual handle feed	1Unit	S	S	Programmable data input	G10	S	S	
Manual handle feed rate	x1, x10, x100	S	S	Sub program call	10 folds nested	S	S	
Interpolation function								
Positioning	G00	S	S	Custom macro B		S	S	
Linear interpolation	G01	S	S	Addition of custom macro common variables	#100-#199, #500-#999	S	S	
Circular interpolation	G02, G03	S	S	Canned cycles		S	S	
Dwell (Per seconds)	G04	S	S	Multiple repetitive cycle		S	S	
Polar coordinate interpolation	G12.1 / G13.1	-	S	Multiple repetitive cycle II		S	S	
Cylindrical interpolation	G7.1	-	S	Canned cycles for drilling		S	S	
Threading	G32	S	S	Manual Guide i		S	S	
Multiple threading		S	S	Spindle speed function				
Threading retract		S	S	Constant surface speed control	G96 / G97	S	S	
Continuous threading		S	S	Spindle override	50 - 120 %	S	S	
Variable lead threading	G34	S	S	Spindle orientation		S	S	
Reference position return 1st	G28	S	S	Rigid tapping		O	S	
Reference position return check	G27	S	S	Spindle synchronous control		-	-	
2,3,4th reference position return	G30	S	S	Editing operation				
Arbitrary speed threading	O	O	O	Part program storage length	1,280m (512kB)	S	S	
Feed function				Number of register able programs	400ea	S	S	
Rapid traverse override	F0, F25, F50, F100	S	S	Background editing		S	S	
Feed per minute (mm/min)	G98	S	S	Extended part program editing		S	S	
Feed per revolution (mm/rev)	G99	S	S	Play back		S	S	
Rapid traverse bell-shaped acceleration/deceleration		S	S	Clock function		S	S	
Feedrate override	0-150%	S	S	Self - diagnosis function / Alarm history display		S	S	
Jog feed override	0-1,260 mm / min	S	S	Help function		S	S	
Tool function / compensation				Run hour and parts count display		S	S	
Tool function	T4-Digits	S	S	Graphic function		S	S	
Tool offset pairs	128 Pairs	S	S	Dynamic graphic display		O	O	
Tool nose radius compensation		S	S	Multi-language display		English, German, French, Italian, Chinese, Spanish, Korean, Portuguese, Polish, Hungarian, Swedish, Russian	S	S
Tool geometry / wear compensation		S	S	Data input/output				
Tool life management		O	O	Reader/Puncher interface CH1	RS232C	S	S	
Automatic tool offset	Tool presetter option is required	O	O	Reader/Puncher interface CH2	RS232C	S	S	
Direct input tool offset value measured B	Tool presetter option is required	O	O	Ethernet interface		S	S	
Others				Memory card interface		S	S	
Display unit	10.4" Color LCD	S	S	USB card interface		S	S	

Hwacheon Global Network

■ Hwacheon Headquarter ■ Hwacheon America ■ Hwacheon Europe ■ Hwacheon Asia



HWACHEON

Please call us for product inquiries.

www.hwacheon.com

The product design and specifications may change without prior notice.

Read the operation manual carefully and thoroughly before operating the product,
and always follow the safety instructions and warnings labels attached on the surfaces of the machines.

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