



Hi-TECH 200A

HIGH PRODUCTIVITY
HORIZONTAL TURNING CENTER

CNC
Computerized Numerical Control

Hi-TECH 200

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

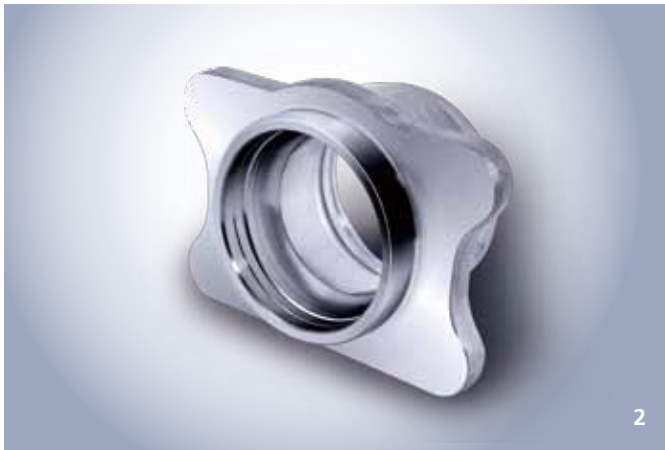




8"-10" BOX WAY TYPE HORIZONTAL TURNING CENTER

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.



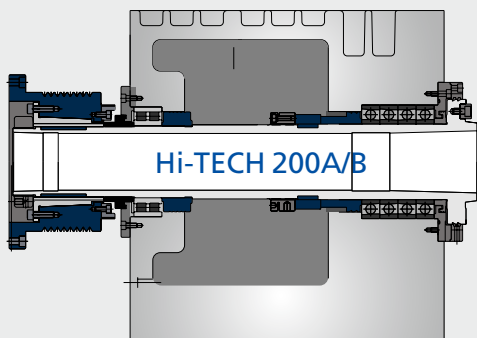
Tough, Rigid Indexing Turret

Hi-TECH 200's turret provides a fast index time of 0.15sec/step and a massive clamping force of 4,300kg_r (9,480lb_r). 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.

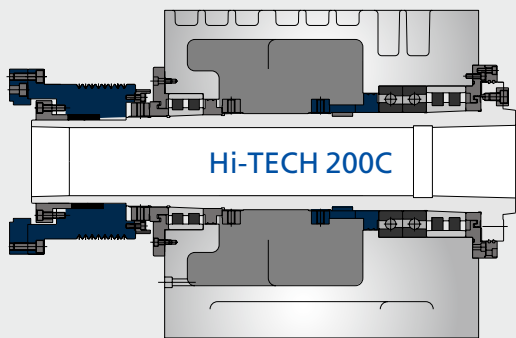


High-performance spindle

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 / 2.5"	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.



Tool Presetter (Option)

The tool presetter employs a highly accurate sensor with the repeatability of 5µm or less 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.

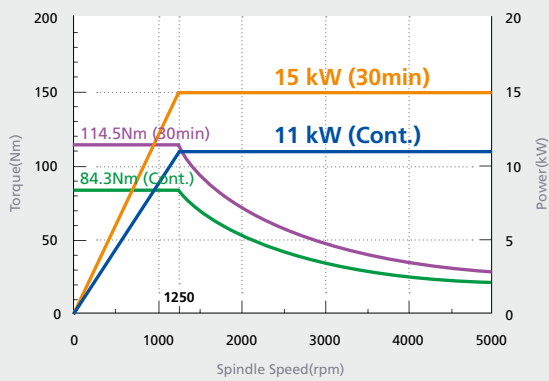
Product Data

* Unit: mm(inch)

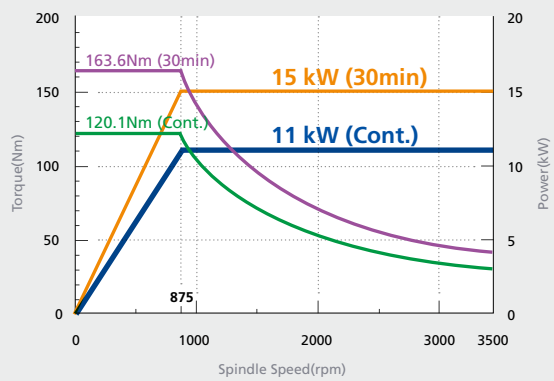


Spindle Power-Torque Diagram

Hi-TECH 200A



Hi-TECH 200B/C

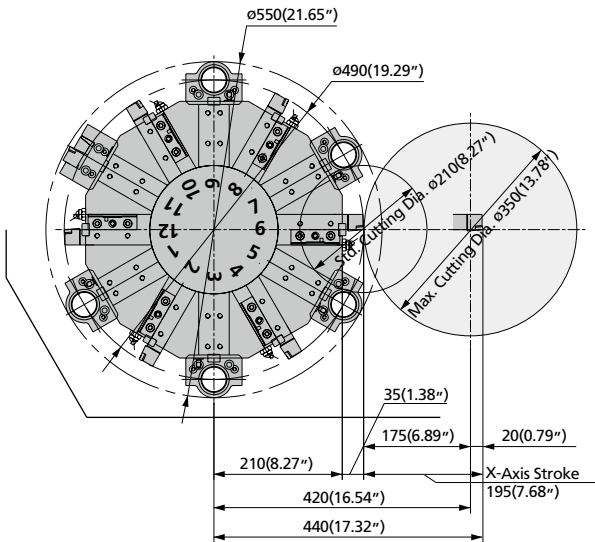


Tool Interference Diagram

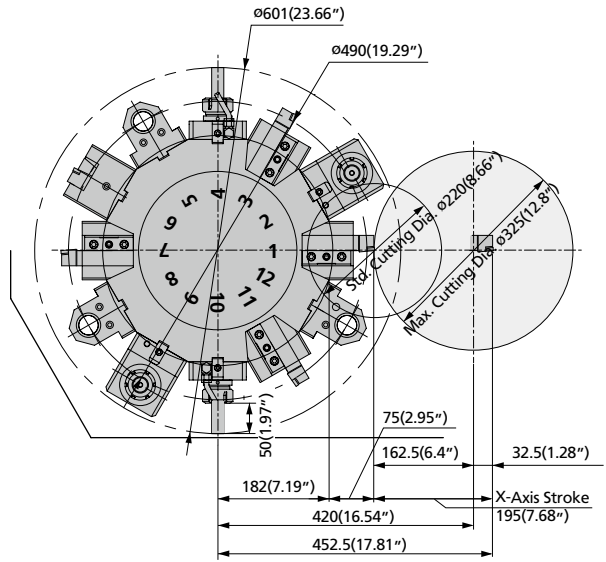
※ Unit : mm(inch)

Hi-TECH 200A/B

STD

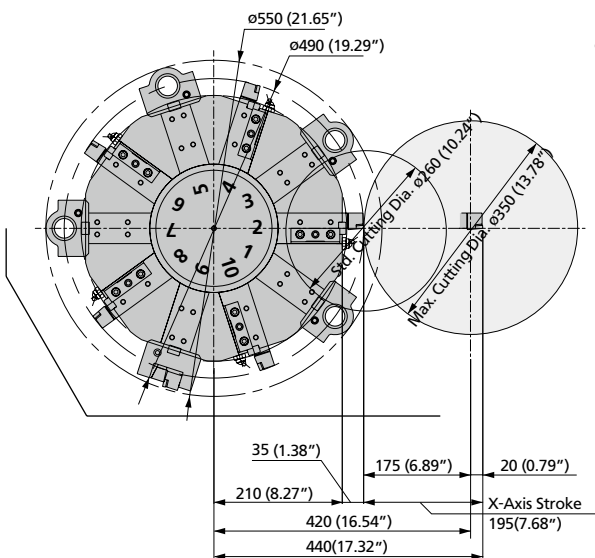


MC

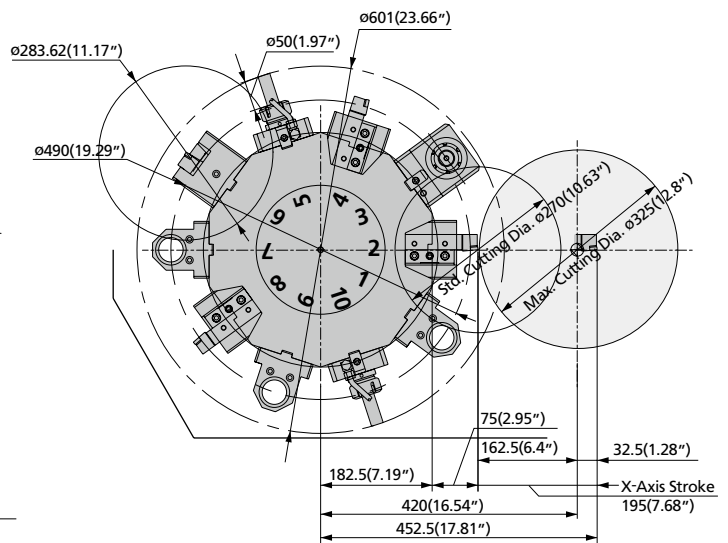


Hi-TECH 200C

STD



MC



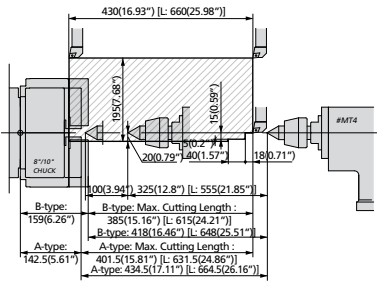
Moving Range

※Unit: mm(inch), [L] : Long Type

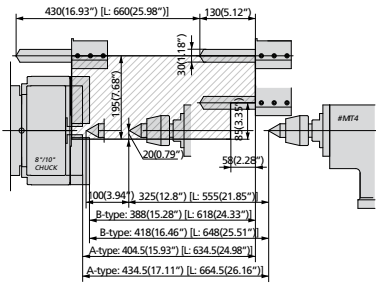
Hi-TECH 200A/B

STD

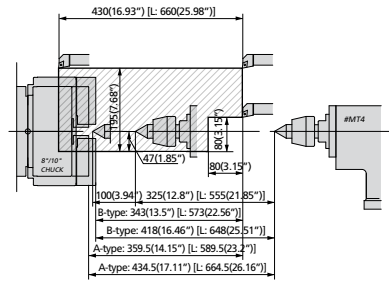
O.D Holder



Boring Holder

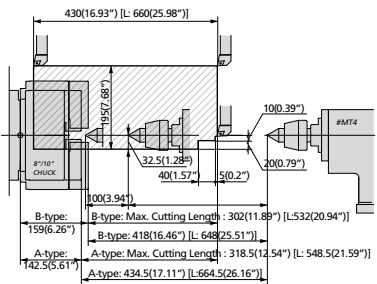


Face Holder

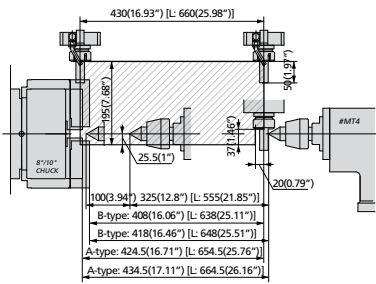


MC

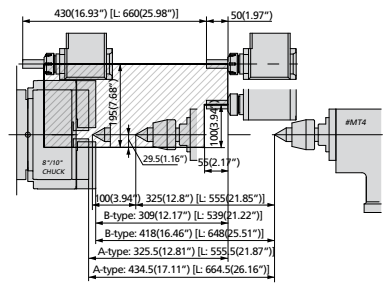
O.D Holder



Axial Turnmill Holder



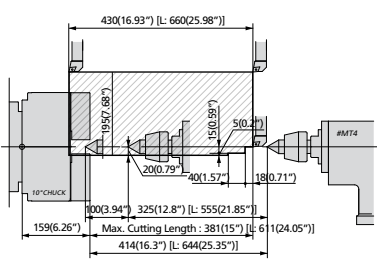
Radial Turnmill Holder



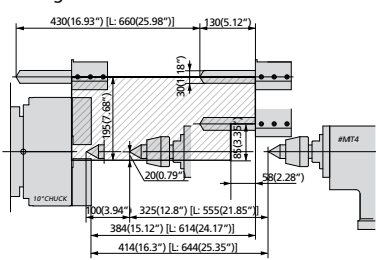
Hi-TECH 200C

STD

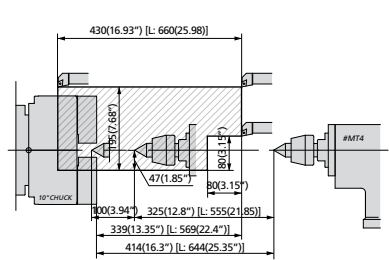
O.D Holder



Boring Holder

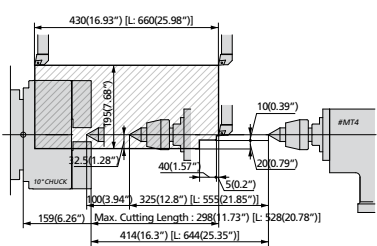


Face Holder

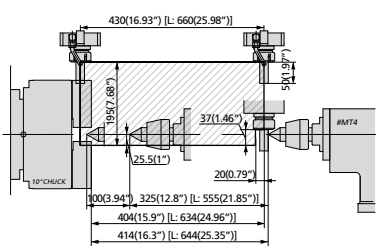


MC

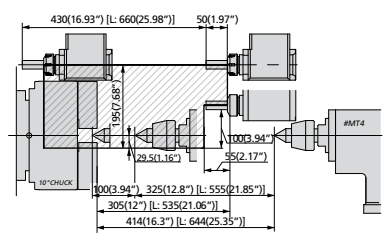
O.D Holder



Axial Turnmill Holder

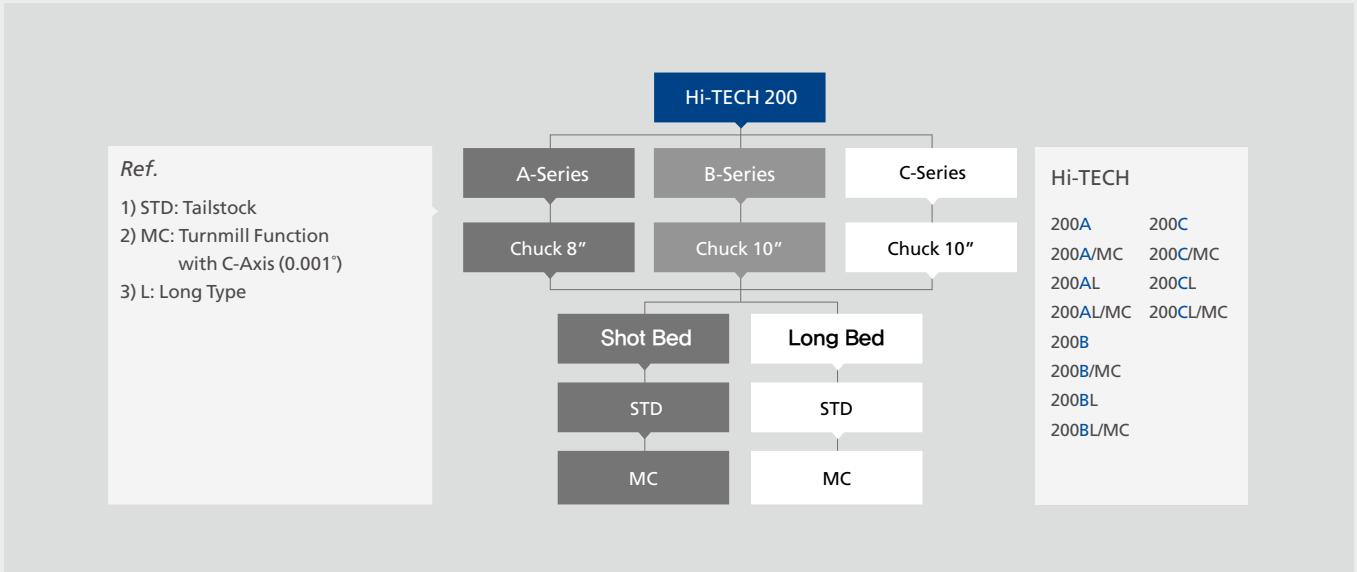


Radial Turnmill Holder



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)	□25 x Ø40 (□1" x Ø1.5")					
Turret indexing time	sec / step	0.15					
Feedrates							
Rapid speed (X/Z)	m/min (ipm)	30 / 30 (1181.1 / 1181.1)					
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 (0.6") / M12	-	Ø16 (0.6") / M12	-	Ø16 (0.6") / 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")					
Weight	kg (lb)	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 Oi-TD							

* [] : Long Type

Standard and Optional Product Components

Standard Accessories		Optional Accessories	
• Coolant system (Separated Coolant Tank)	• Signal lamp (R, G)	• Air blower	• Set of Hard jaws
• Door interlock	• Soft jaw 1set	• Air gun	• Siemens Controller (828D)
• Foot switch	• Tailstock (MT#4)	• Auto door	• Signal lamp (R, G, Y)
• Hydraulic unit 40kg/cm ²	• Tool kit & box	• Bar feeder interface	• Steady Rest - Long Bed Type
• Hydraulic chuck & cylinder - Hi-TECH 200A: 8" - Hi-TECH 200B / C : 10"	• Tooling system	• Chip conveyor & box, Side / Back type	• Tool life management
• Leveling bolt & plate	• Turret with 12 station (C type: 10 station)	• Chuck dual pressure system	• Tool presetter
• Manual Guide i	• Work light	• Chuck pressure check switch	• Tool & work counter, External type / Internal type
• Operation manual & part list	• 10.4" LCD monitor	• Chuck pressure compensation	• Transformer
		• Coolant gun	• Turnmill holder (Axial / Radial)
		• High pressure pump, 6 bar / 15bar	• Turnmill & C-axis indexing (0.001°)
		• L-HTLD (Lathe-Hwacheon Tool Load Detect)	• U-drill holder
		• NC cooler	• 8" Big Bore Chuck (Max. Bar size Ø64)
		• Parts catcher	

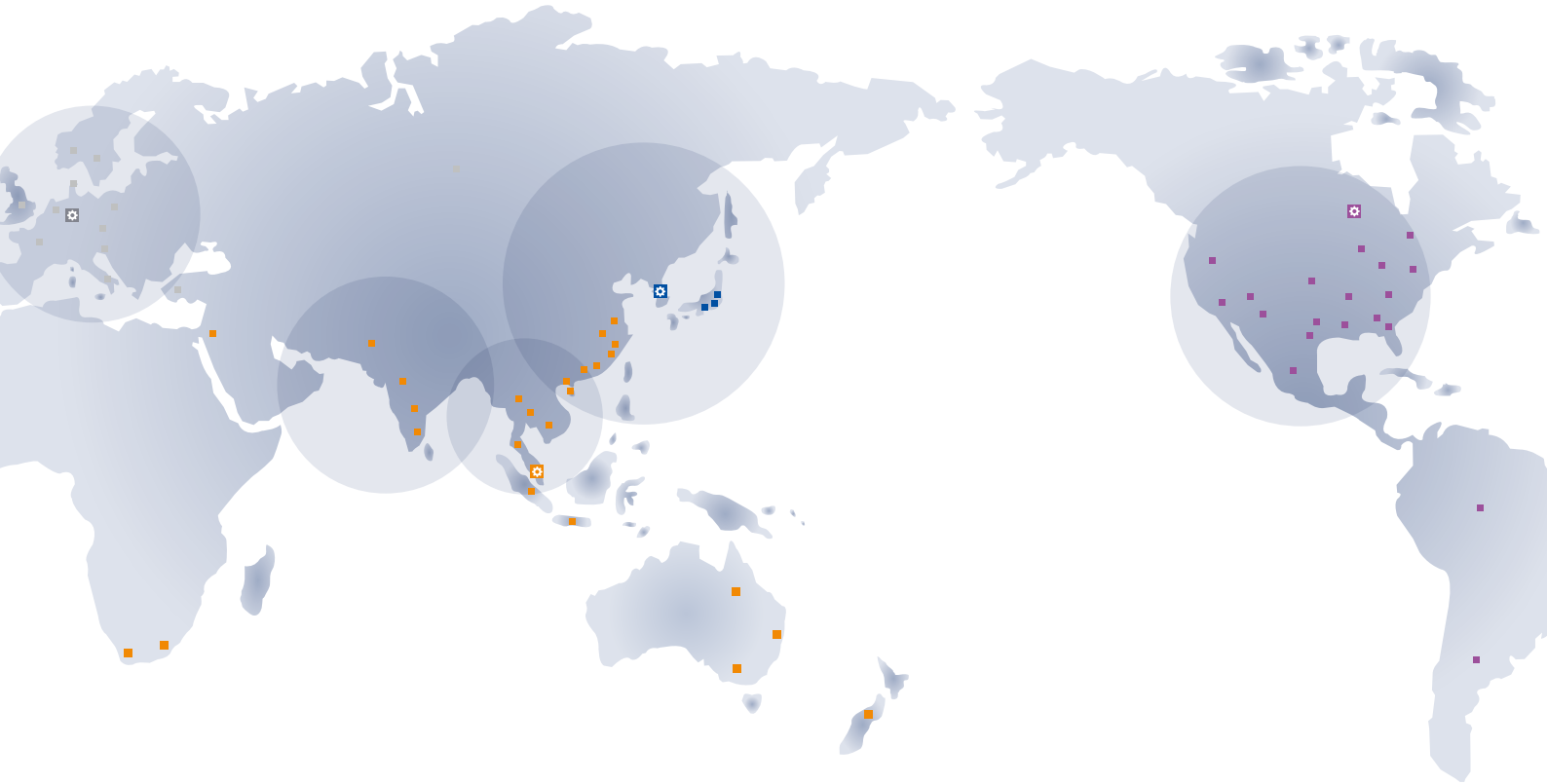
NC Specifications [Fanuc Oi-TD]

※ - : Not available S : Standard O : Option

ITEM	SPECIFICATION	STD	MC	ITEM	SPECIFICATION	STD	MC
Controlled axis				Program input			
Controlled axis (Cs axis)	2-Axes	2-Axes	3-Axes	Tape code	EIA RS244 / ISO840	S	S
Simultaneously controlled axes	2-Axes	2-Axes	3-Axes	Optional block skip	1ea	S	S
Least input increment	0.001 mm, 0.001 deg, 0.0001 inch	S	S	Program number	O4-Digits	S	S
Least input increment 1/10	0.0001 mm, 0.0001 deg, 0.00001 inch	O	O	Sequence number	N5-Digits	S	S
inch/metric conversion	G20, G21	S	S	Decimal point programming		S	S
Stored stroke check 1		S	S	Coordinate system setting	G50	S	S
Stored stroke check 2,3		S	S	Coordinate system shift		S	S
Chamfering on/off		S	S	Workpiece coordinate system	G54-G59	S	S
Backlash compensation		S	S	Workpiece coordinate system preset	G92.1	S	S
Operation				Direct drawing dimension programming		S	S
Automatic & MDI operation		S	S	G code system	A	S	S
Program number search		S	S	Programmable data input	G10	S	S
Sequence number search		S	S	Sub program call	10 folds nested	S	S
Dry run, single block		S	S	Custom macro B		S	S
Manual handle feed	1Unit	S	S	Addition of custom macro common variables	#100-#199, #500-#999	S	S
Manual handle feed rate	x1, x10, x100	S	S	Canned cycles		S	S
Interpolation function				Multiple repetitive cycle		S	S
Positioning	G00	S	S	Multiple repetitive cycle II		S	S
Linear interpolation	G01	S	S	Canned cycles for drilling		S	S
Circular interpolation	G02, G03	S	S	Small-hole peck drilling cycle		S	S
Dwell (Per seconds)	G04	S	S	Manual guide i		S	S
Polar coordinate interpolation	G12.1 / G13.1	-	S	Spindle speed function			
Cylindrical interpolation	G7.1	-	S	Constant surface speed control	G96 / G97	S	S
Threading	G32	S	S	Spindle override	50 - 120 %	S	S
Multiple threading		S	S	Spindle orientation		S	S
Threading retract		S	S	Rigid tapping		O	S
Continuous threading		S	S	Spindle synchronous control		-	-
Variable lead threading	G34	S	S	Editing operation			
Reference position return 1st	G28	S	S	Part program storage length	1,280m (512kB)	S	S
Reference position return check	G27	S	S	Number of register able programs	400ea	S	S
2,3,4th reference position return	G30	S	S	Background editing		S	S
Feed function				Extended part program editing		S	S
Rapid traverse override	F0, F25, F50, F100	S	S	Play back		S	S
Feed per minute (mm/min)	G98	S	S	Clock function		S	S
Feed per revolution (mm/rev)	G99	S	S	Self - diagnosis function / Alarm history display		S	S
Rapid traverse bell-shaped acceleration/deceleration		S	S	Help function		S	S
Feedrate override	0-150 13%	S	S	Run hour and parts count display		S	S
Jog feed override	0-1,260 mm / min	S	S	Graphic function		S	S
Tool function / compensation				Dynamic graphic display		-	-
Tool function	T4-digits	S	S	Multi-language display	English, German, French, Italian, Chinese, Spanish, Korean, Portuguese, Polish, Hungarian, Swedish,Russia	S	S
Tool offset pairs	64pairs	S	S				
Tool nose radius compensation		S	S				
Tool geometry / wear compensation		S	S				
Tool life management		O	O				
Automatic tool offset	Tool presetter option is required	O	O	Data input/output			
Direct input tool offset value measured B	Tool presetter option is required	O	O	Reader/Puncher interface CH1	RS232C	S	S
Others				Reader/Puncher interface CH2	RS232C	S	S
Display unit	10.4" Color LCD	S	S	Ethernet interface		S	S
				Memory 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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