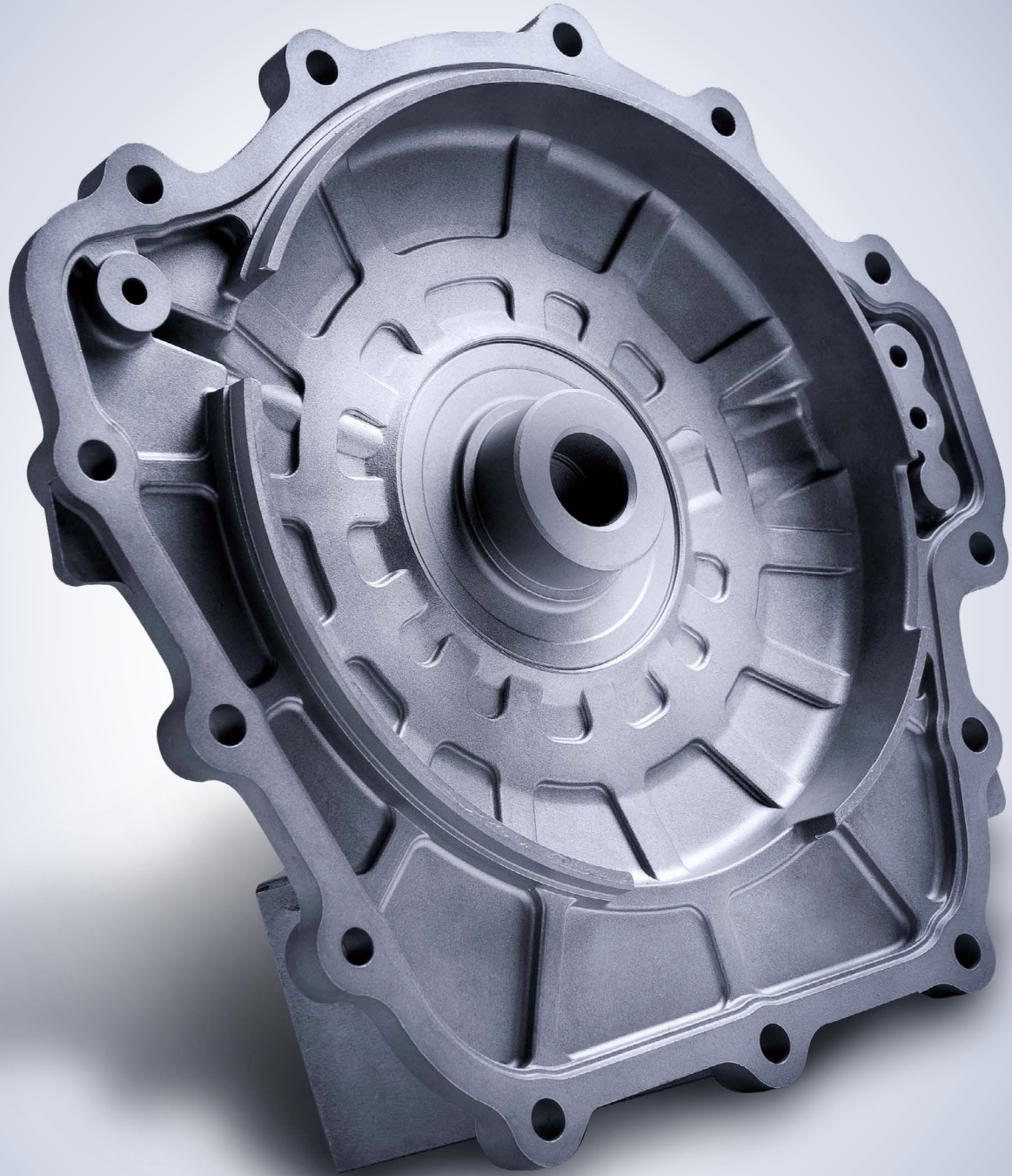




Hi-TECH 200

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

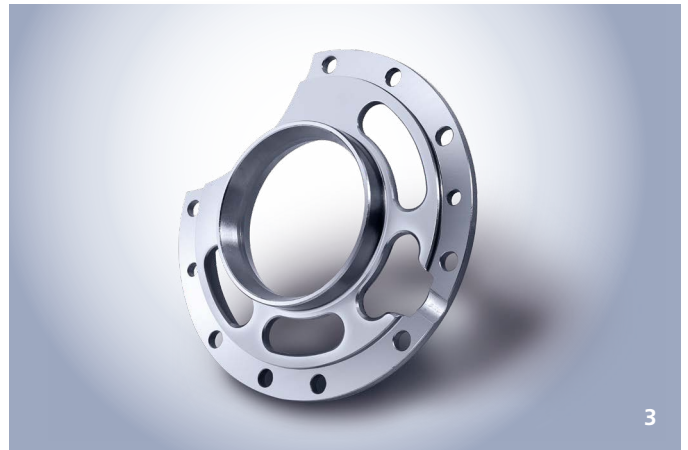
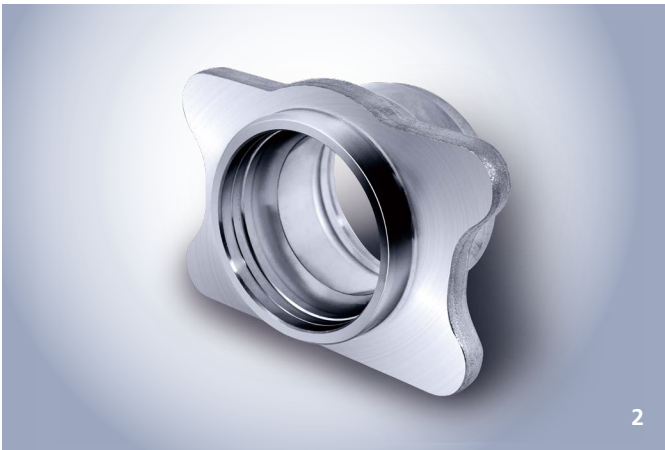




8"-10" BOX WAY TYPE HORIZONTAL TURNING CENTER

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

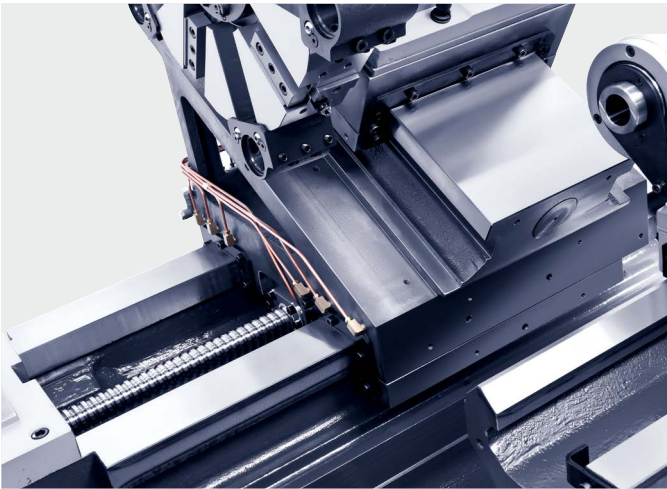


VARIETY SPECIFICATIONS FOR CUSTOMER NEEDS

Customizable

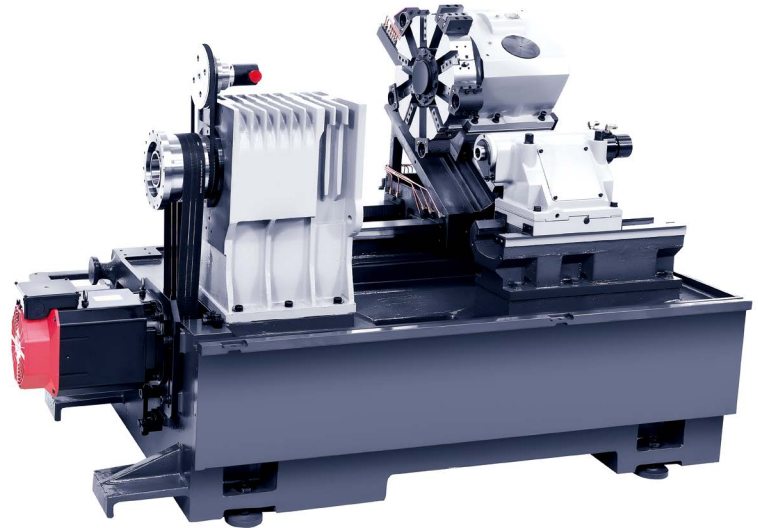
Customize Hi-TECH 200 with many different spindle sizes to fit your work. Its small footprint and rigid box way structure will deliver quality and precision after hours and hours of non-stop operation.





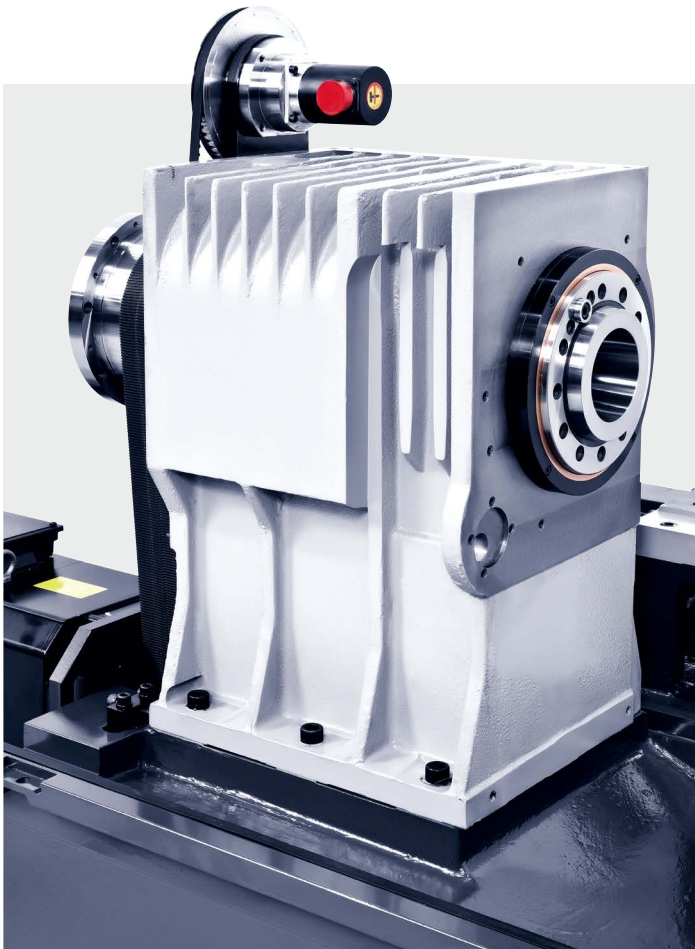
Extra Rigid Single Frame Structure

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.



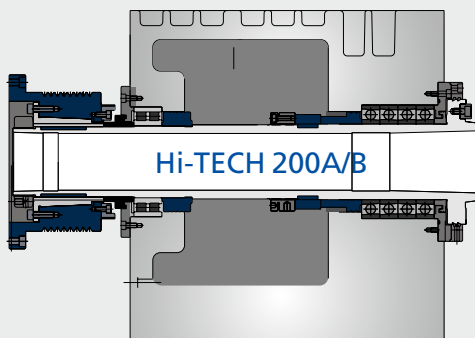
Tough, Rigid Indexing Turret

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.

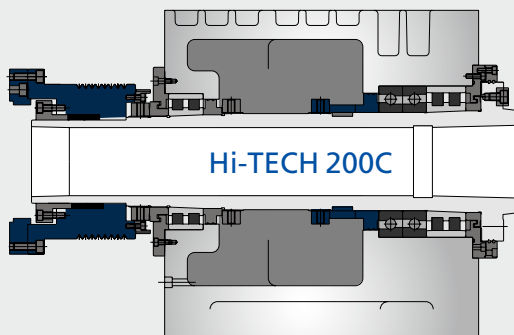


High Performance Spindle

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 / Ø2"	Ø65 / Ø2.55"	Ø76 / Ø3"



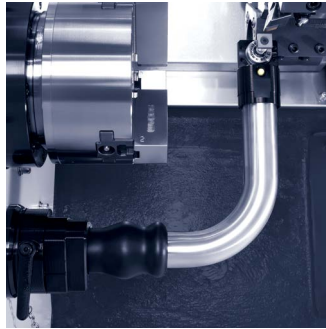
USER FRIENDLY DESIGN, A WIDE RANGE OF OPTIONAL FEATURES

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.

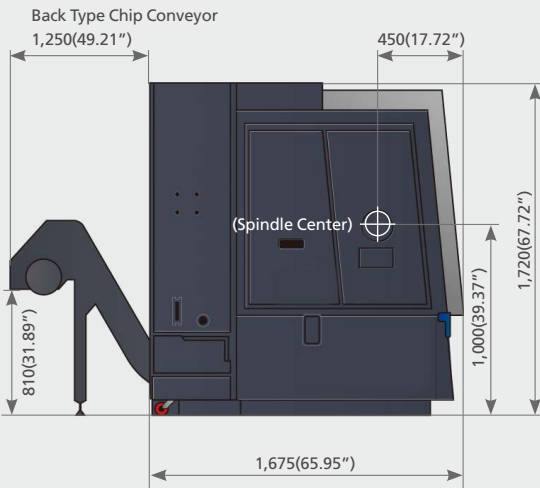
Load Detection Limit 2

Alarm + Machine Stop

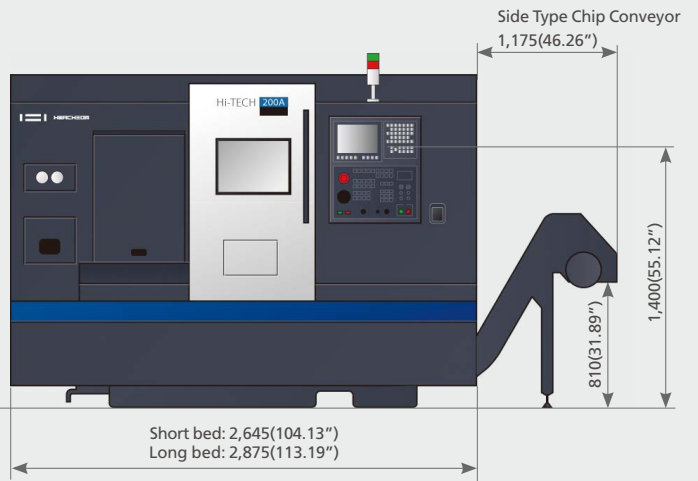
> When the LIMIT 2 Alarm sounds, the system stops the machine, and must be reset to operate it.

Product Data

* Unit: mm(inch)



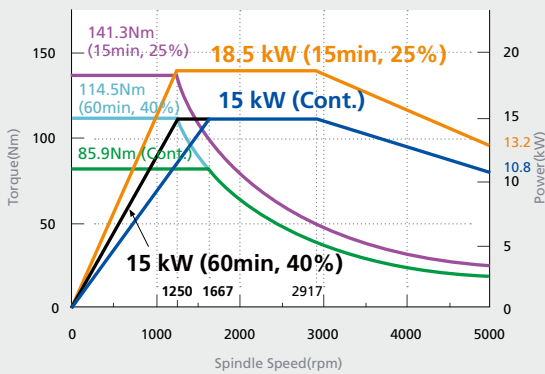
Left Side



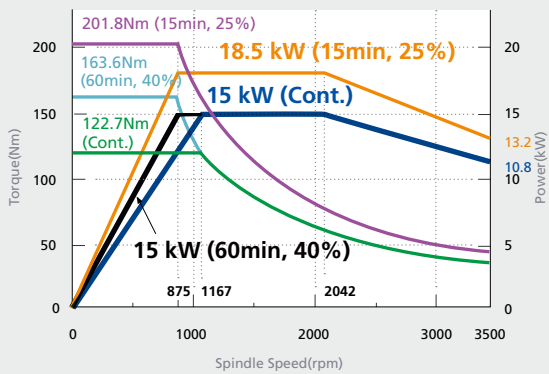
Front

Spindle Power-Torque Diagram

Hi-TECH 200A



Hi-TECH 200B/C

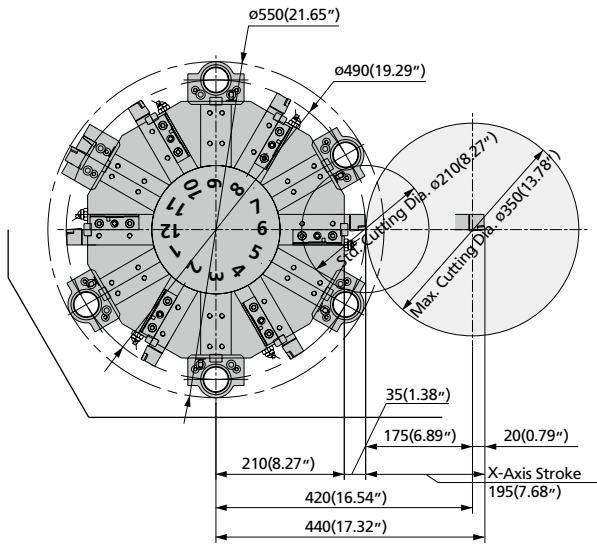


Tool Interference Diagram

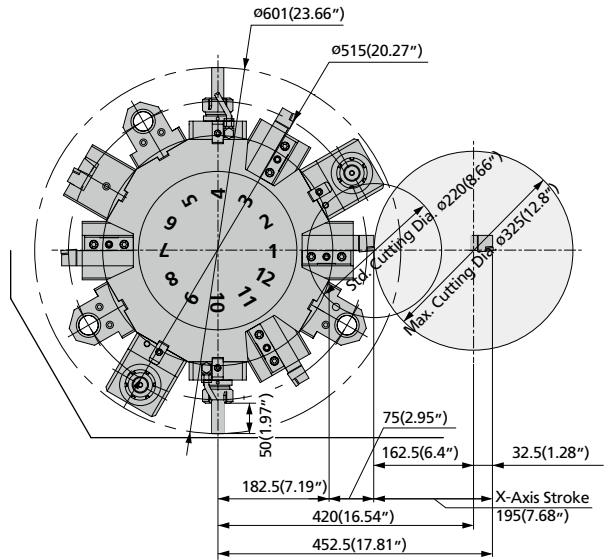
※ Unit : mm(inch)

Hi-TECH 200A/B

STD

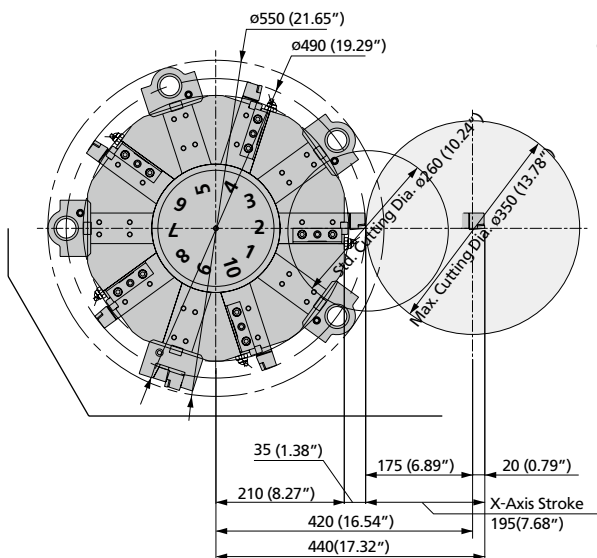


MC

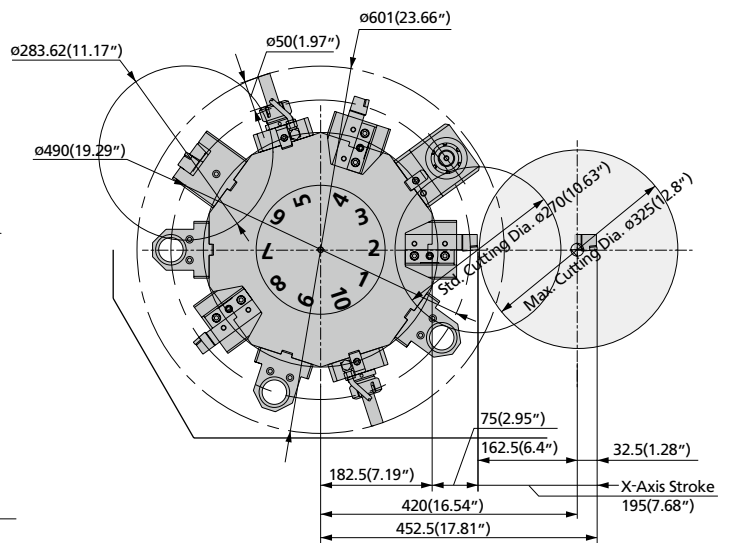


Hi-TECH 200C

STD



MC



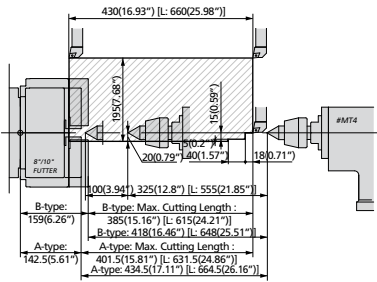
Moving Range

※Unit: mm(inch), [L] : Long Type

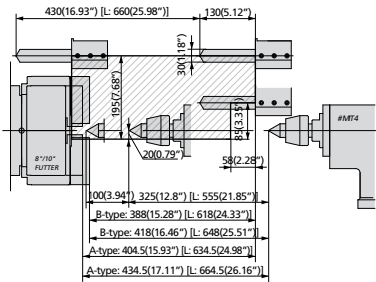
Hi-TECH 200A/B

STD

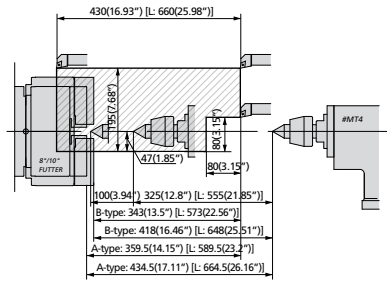
O.D Holder



I.D Holder

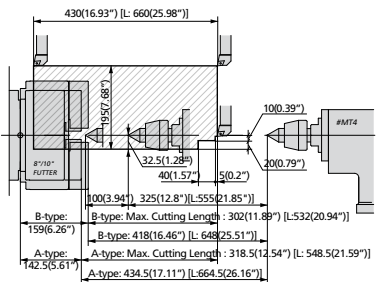


Face Holder

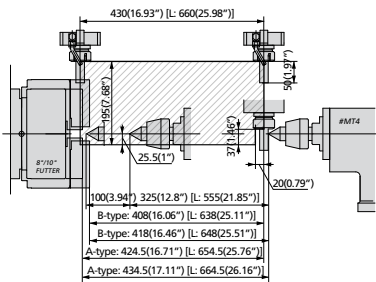


MC

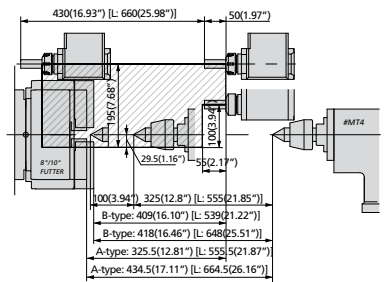
O.D Holder



Axial Turnmill Holder



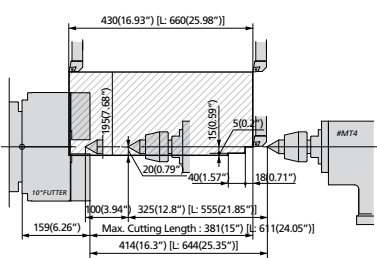
Radial Turnmill Holder



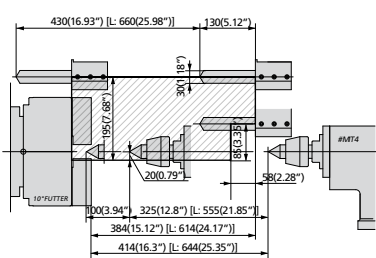
Hi-TECH 200C

STD

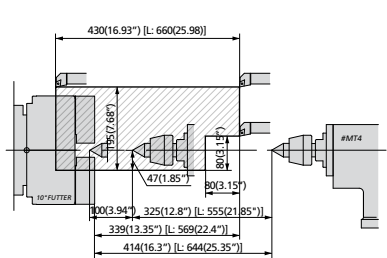
O.D Holder



I.D Holder

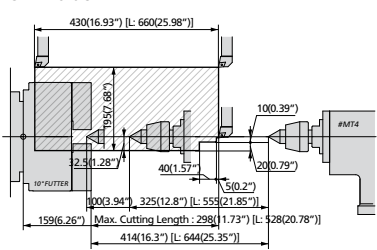


Face Holder

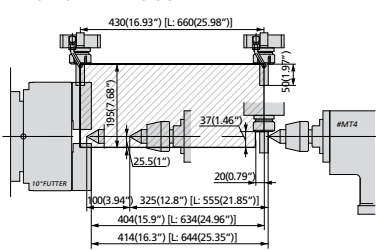


MC

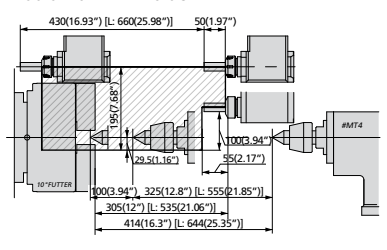
O.D Holder



Axial Turnmill Holder

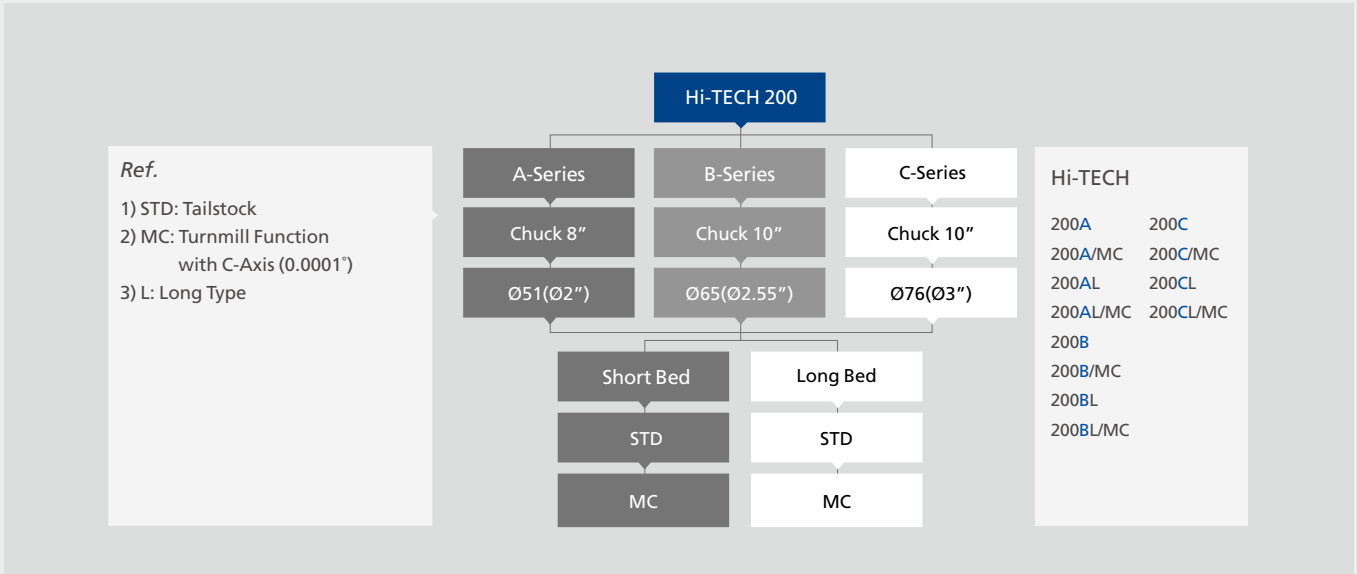


Radial Turnmill Holder



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 (Ø19.69")					
Max. Cutting Diameter	mm (inch)		Ø350 (Ø13.78")	Ø325 (Ø12.8")	Ø350 (Ø13.78")	Ø325 (Ø12.8")		
Standard Cutting Diameter	mm (inch)		Ø210 (Ø8.27")	Ø220 (Ø8.66")	Ø220 (Ø8.66")	Ø260 (Ø10.24")	Ø270 (Ø10.63")	
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"			
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 (Ø2.95")			Ø90 (Ø3.54")		
Max. Bar Size	mm (inch)		Ø51 (Ø2")		Ø65 (Ø2.56")		Ø76 (Ø3")	
Spindle Bearing Inner Diameter	mm (inch)		Ø100 (Ø3.94")			Ø130 (Ø5.12")		
Spindle Motor	kW (HP)		18.5 / 15 (25 / 20)					
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					
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)		
Tailstock								
Quill Dia.	mm (inch)		Ø80 (3.15")					
Quill Stroke	mm (inch)		Ø100 (3.94")					
Quill Taper	MT		# 4					
Turnmill								
Spindle Motor	kW (HP)		-	3.7 / 2.2 (5 / 3)	-	3.7 / 2.2 (5 / 3)		
Max. Spindle Speed	rpm		-	5,000	-	5,000		
Max. Drill/Tap Size	mm (inch)		-	Ø16 (Ø0.63") / M12	-	Ø16 (Ø0.63") / M12		
Min. Index Angle	°(deg)		-	0.0001°	-	0.0001°		
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	kg, (lb.)		4,450 (9,811) [5,050 (11,133)]	4,600 (10,141) [5,200 (11,464)]	4,650 (10,251) [5,250 (11,574)]	4,800 (10,582) [5,400 (11,905)]		
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, Y)	• Air Gun	• Siemens Controller (828D)
• Foot Switch	• Tailstock (MT#4) (Manual)	• Auto Door	• Steady Rest - Long Bed Type
• Hydraulic Unit 40kg _f /cm ²	• Tool Kit & Box	• Bar Feeder Interface	• Tool Life Management
• Hydraulic Chuck & Cylinder - Hi-TECH 200A: 8" - Hi-TECH 200B / C : 10"	• Tooling System	• Chip Conveyor & Box, Side / Back Type	• Tool Presetter (manual)
• Leveling Bolt & Plate	• Turret with 12 Station (C-Type: 10 Station)	• Chuck Clamp/Unclamp Confirm Switch	• Tool & Work Counter, External Type / Internal Type
• Manual Guide i	• Work Light	• Chuck Pressure Check Switch	• Transformer
• Operation Manual & Part List	• 10.4" Color LCD	• Chuck Pressure Compensation	• Turnmill Holder (Axial / Radial)
		• Coolant Gun	• Turnmill & C-Axis Indexing (0.0001°)
		• Dual Pressure (Chuck)	• U-Drill Holder
		• Dual Pressure (C-axis brake)	• 15" Color LCD (only FANUC)
		• High Pressure Pump, 0.6 / 1.5 MPa	
		• Linear Scale (X-axis)	
		• L-HTLD (Lathe-Hwacheon Tool Load Detect)	
		• NC Cooler	
		• Parts Catcher	

NC Specifications [Fanuc Oi-TF]

※ - : 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 / ISO	S	S
Simultaneously controlled axes	2-Axes	2-Axes	3-Axes	Optional block skip	9ea	S	S
Least input increment	0.001 mm, 0.0001 deg, 0.0001 inch	S	S	Program number	O4-Digits	S	S
Least input increment 1/10	0.0001 mm, 0.00001 inch	O	O	Sequence number	N8-Digits	S	S
inch/metric conversion	G20, G21	S	S	Decimal point programming		S	S
Stored stroke check 1,2,3		S	S	Coordinate system setting	G50	S	S
Chamfering on/off		S	S	Coordinate system shift		S	S
Backlash compensation		S	S	Workpiece coordinate system	G54-G59	S	S
Operation				Workpiece coordinate system preset	G92.1	S	S
Automatic & MDI operation		S	S	Direct drawing dimension programming		S	S
Program number search		S	S	G code system	A	S	S
Sequence number search		S	S	Programmable data input	G10	S	S
Dry run, single block		S	S	Sub program call	10 folds nested	S	S
Manual handle feed	1Unit	S	S	Custom macro B		S	S
Manual handle feed rate	x1, x10, x100	S	S	Addition of custom macro common variables	#100-#199, #500-#999	S	S
Interpolation function				Canned cycles		S	S
Positioning	G00	S	S	Multiple repetitive cycle		S	S
Linear interpolation	G01	S	S	Multiple repetitive cycle II		S	S
Circular interpolation	G02, G03	S	S	Canned cycles for drilling		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
Arbitrary speed threading		O	O	Extended part program editing		S	S
Feed function				Play back		S	S
Rapid traverse override	F0, F25, F50, F100	S	S	Clock function		S	S
Feed per minute (mm/min)	G98	S	S	Self - diagnosis function / Alarm history display		S	S
Feed per revolution (mm/rev)	G99	S	S	Help function		S	S
Rapid traverse bell-shaped acceleration/deceleration		S	S	Run hour and parts count display		S	S
Feedrate override	0-150%	S	S	Graphic function		S	S
Jog feed override	0-1,260 mm / min	S	S	Dynamic graphic display		O	O
Tool function / compensation				Multi-language display	English, German, French, Italian, Chinese, Spanish, Korean, Portuguese, Polish, Hungarian, Swedish,Russian	S	S
Tool function	T4-Digits	S	S				
Tool offset pairs	128 Pairs	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	S	S	Data input/output			
Direct input tool offset value measured B	Tool presetter option is required	S	S	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
				USB card interface		S	S

Hwacheon Global Network

 Hwacheon Headquarter  Hwacheon America  Hwacheon Europe  Hwacheon Asia



HWACHEON

Please contact 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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