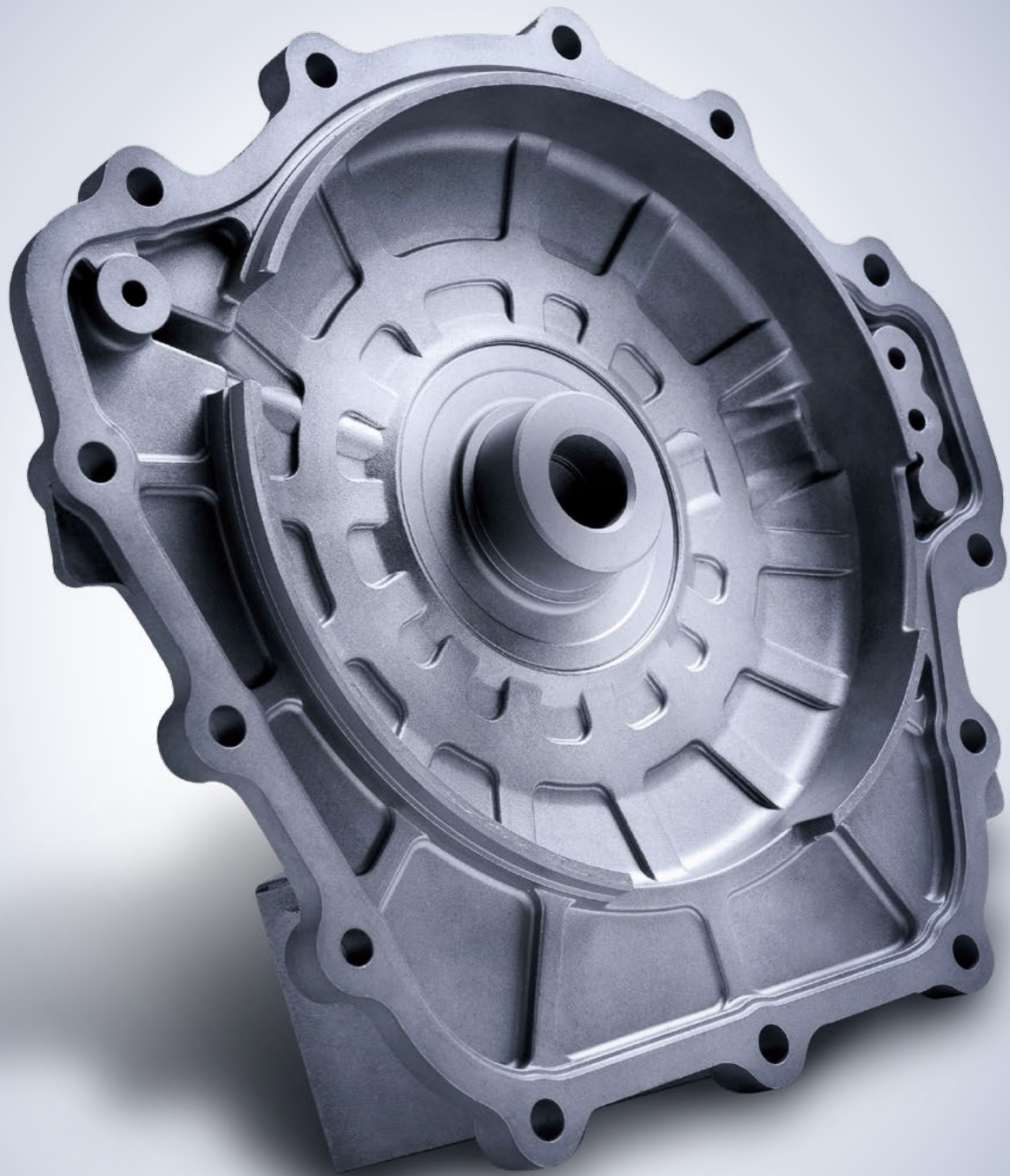




Hi-TECH 200

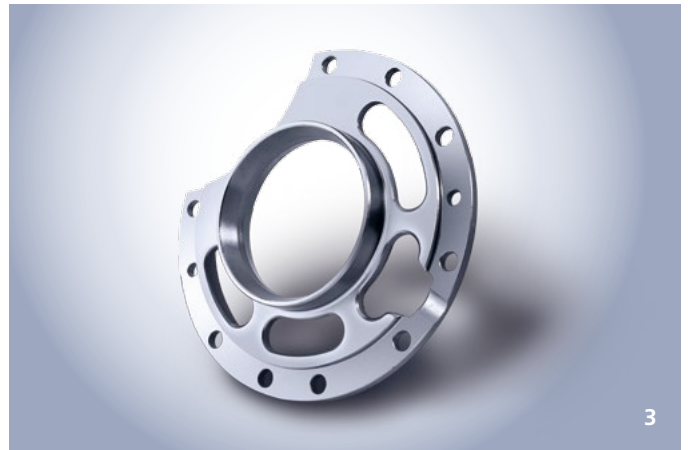
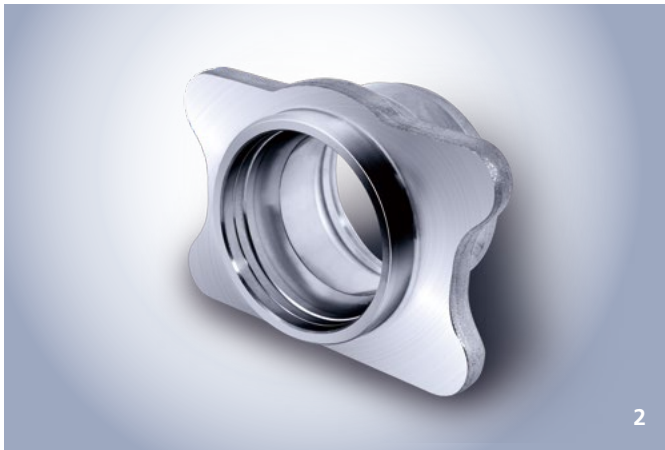
8"-10" Chucker Box Way type
Horizontal Turning Center



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

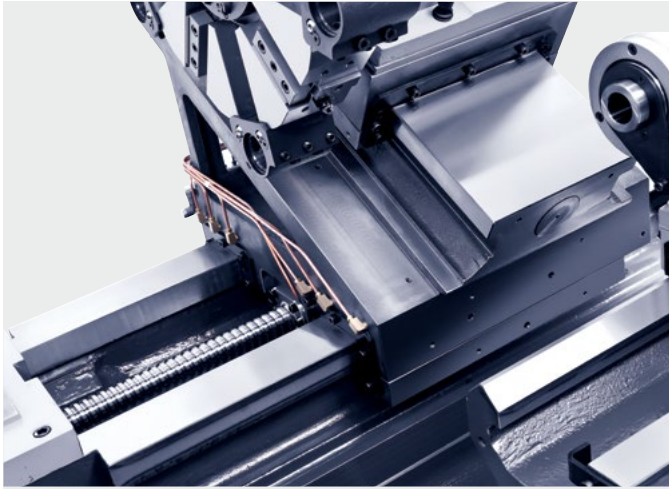


VARIETY SPECIFICATIONS FOR CUSTOMER NEEDS

Customizable

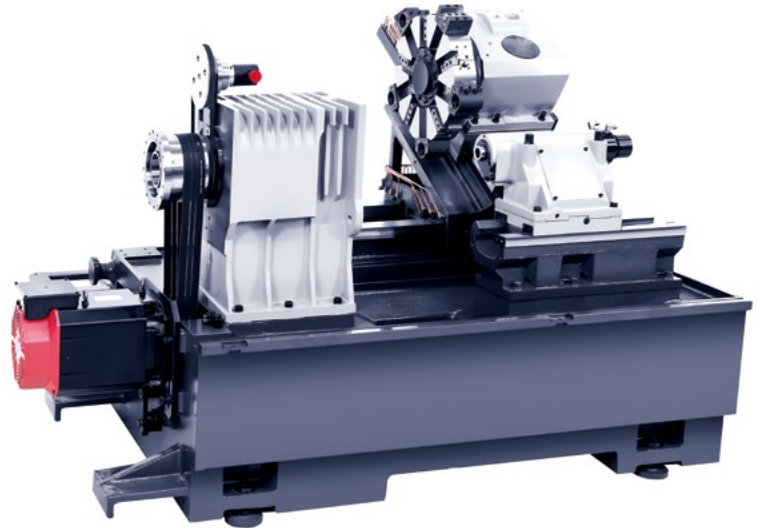
Customize Hi-TECH 200 with many different spindle sizes to fit your work. Its small footprint and rigid box way structure will deliver quality and precision after hours and hours of non-stop operation.





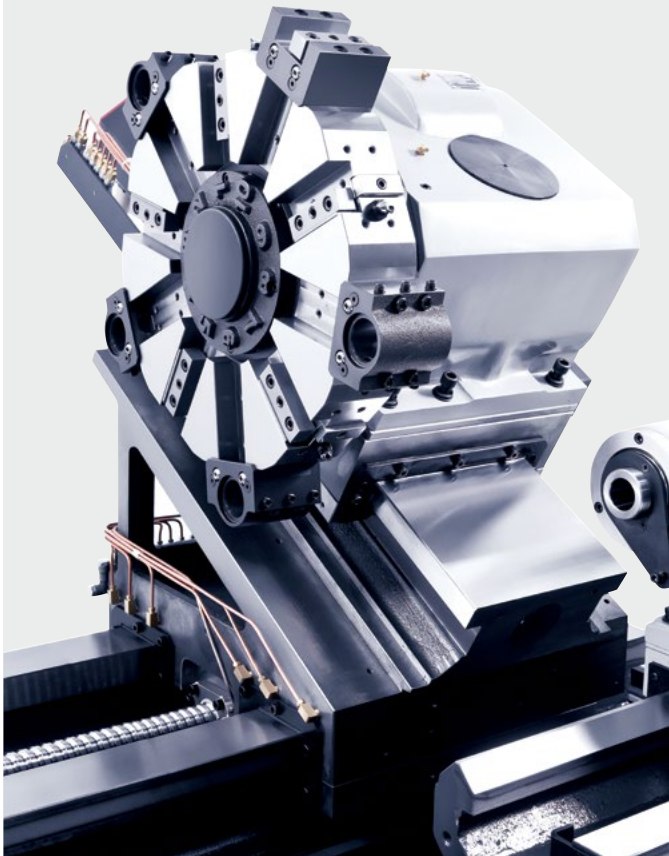
Extra Rigid Single Frame Structure

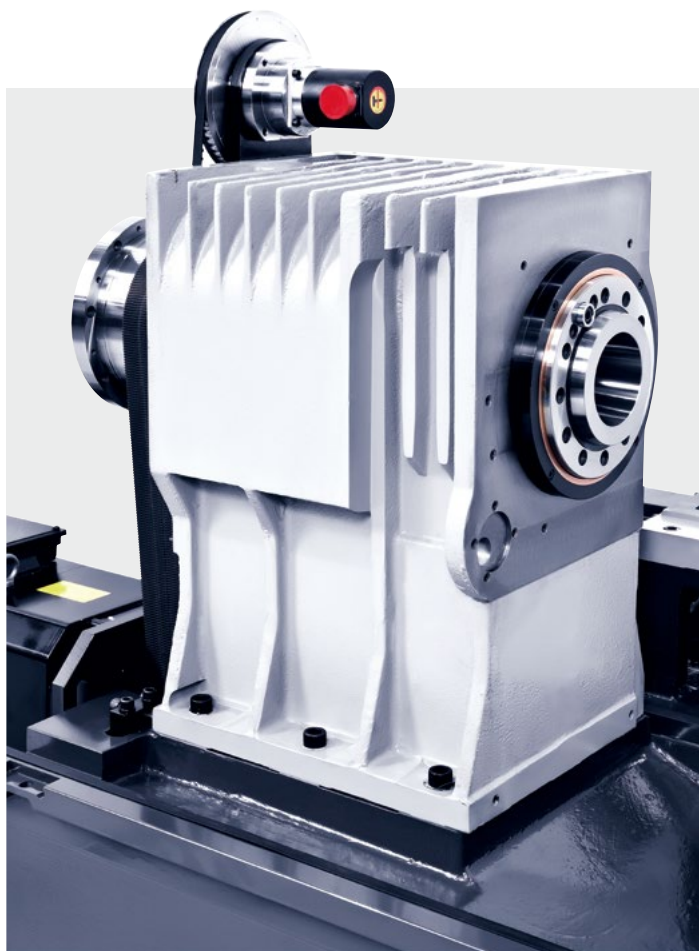
Hi-TECH 200 has an integrated unibody bed frame to minimize heat distortion, and the precision-polished wide guide surface and the ultra-durable bed absorb vibration sufficiently, to assure high degree of machining precision. All guide surfaces incorporate box way design to maintain rigidity and accuracy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



Tough, Rigid Indexing Turret

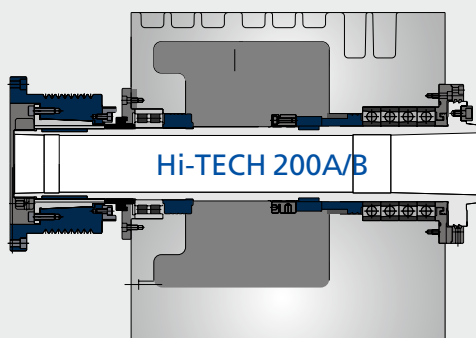
Hi-TECH 200's turret provides a fast index time of 0.15sec/step and a massive clamping force of 4,300kg_f (9,480lb_f). The spindle indexing is performed by a powerful AC servo motor—making HI-TECH 200 perfect for different machining tasks including milling, tapping, and drilling.



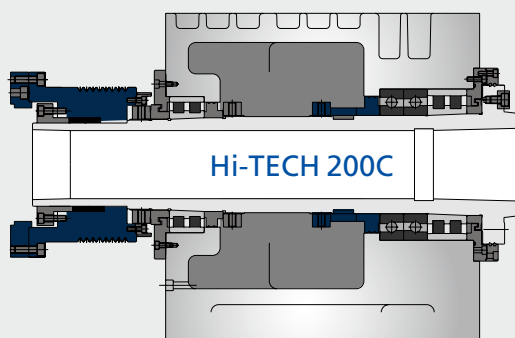


High Performance Spindle

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

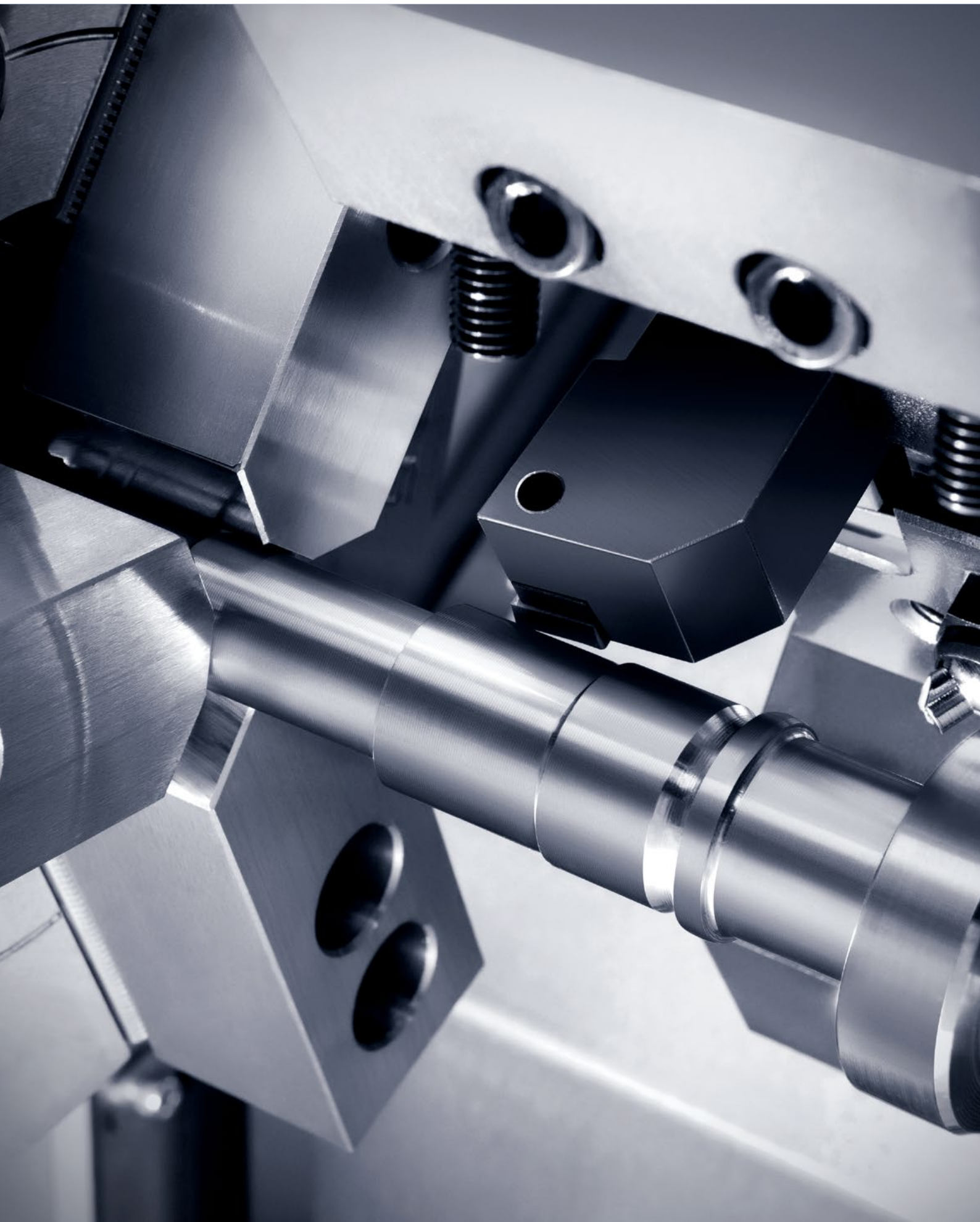


Front: AC Ball Bearing x 2+Roller Bearing x 1
Rear: Roller Bearing x 1

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"	Ø64 / 2.5"	Ø76 / 3"



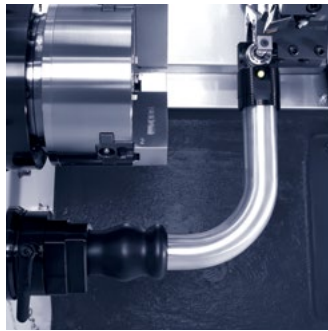
USER FRIENDLY DESIGN, A WIDE RANGE OF OPTIONAL FEATURES

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.

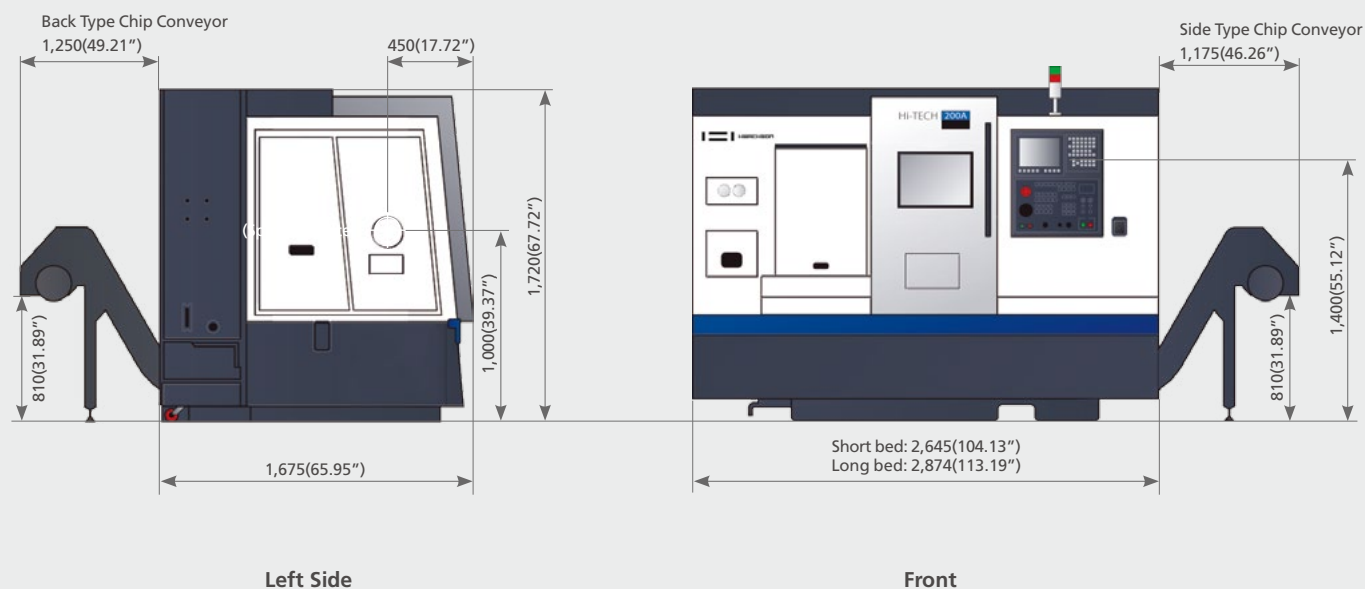
Load Detection Limit 2

Alarm + Machine Stop

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

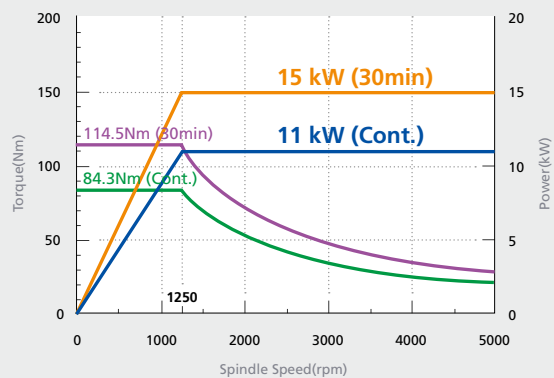
Product Data

* Unit: mm(inch)

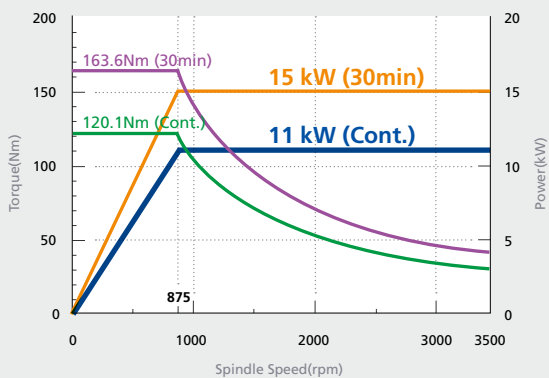


Spindle Power-Torque Diagram

Hi-TECH 200A



Hi-TECH 200B/C

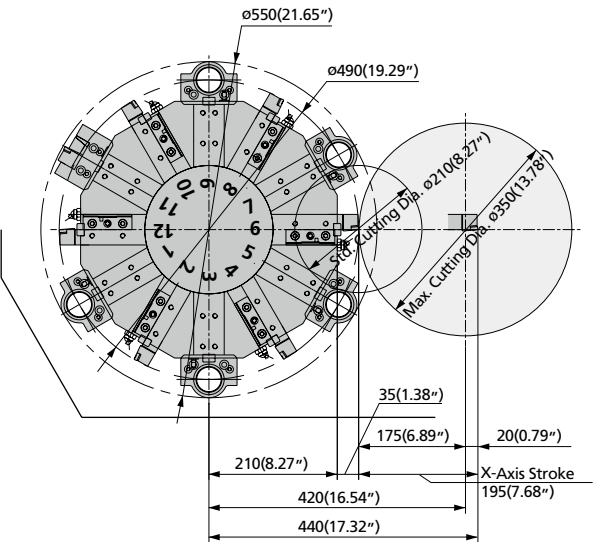


Tool Interference Diagram

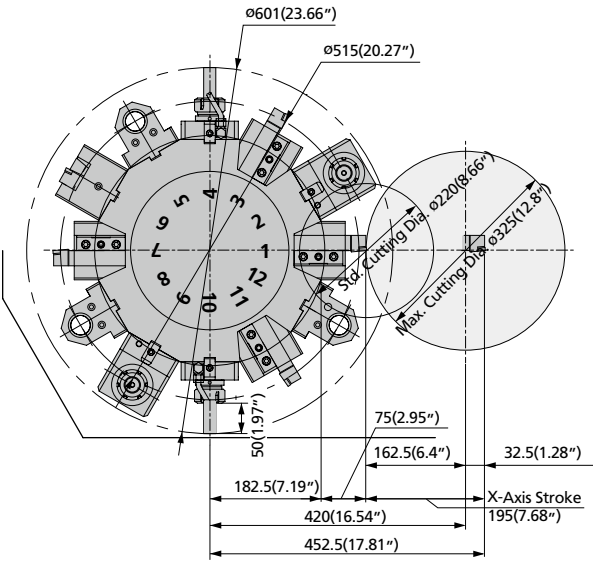
※ Unit : mm(inch)

Hi-TECH 200A/B

STD

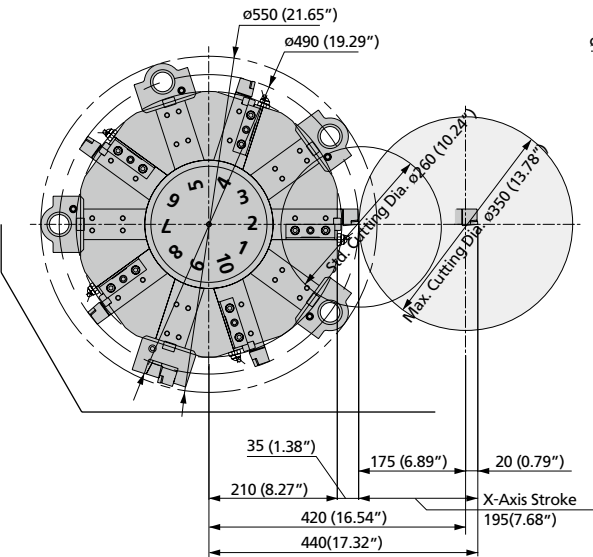


MC

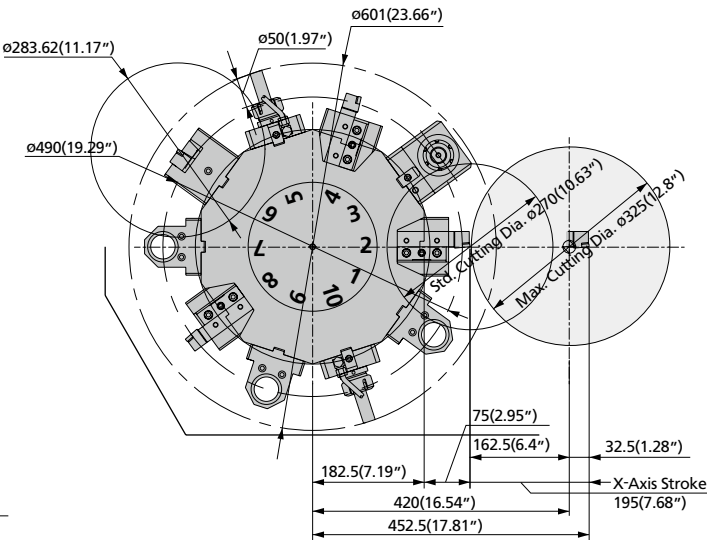


Hi-TECH 200C

STD



MC



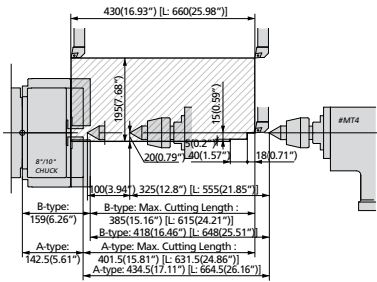
Moving Range

※ Unit : mm (inch), [L] : Long Type

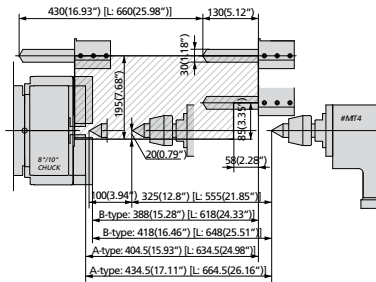
Hi-TECH 200A/B

STD

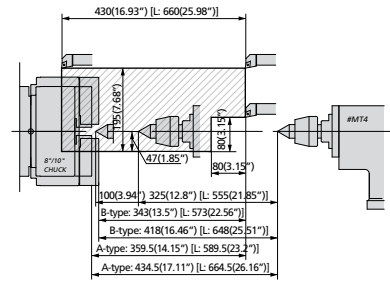
O.D Holder



I.D Holder

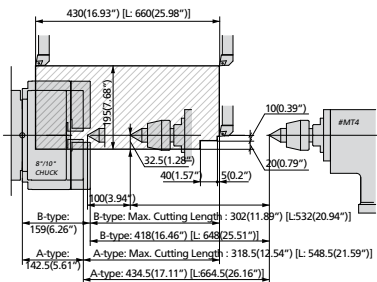


Face Holder

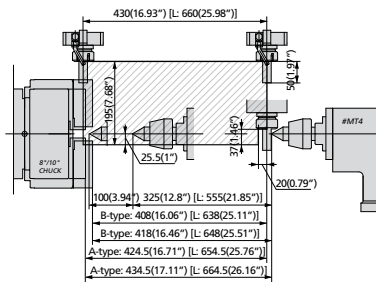


MC

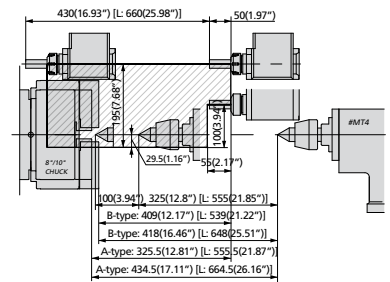
O.D Holder



Axial Turnmill Holder



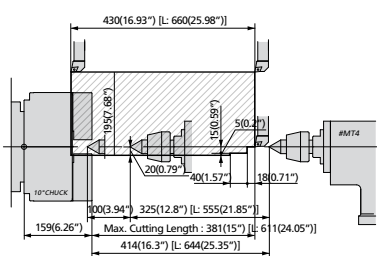
Radial Turnmill Holder



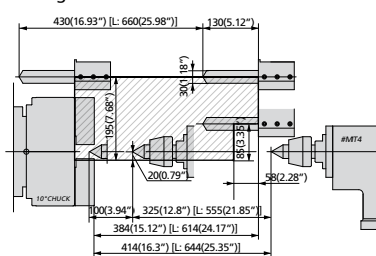
Hi-TECH 200C

STD

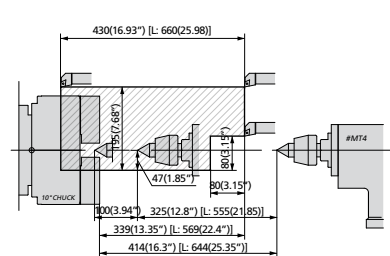
O.D Holder



Boring Holder

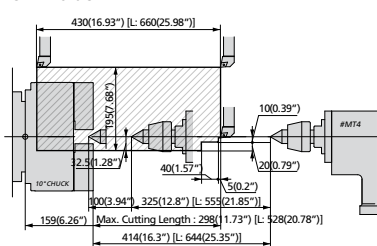


Face Holder

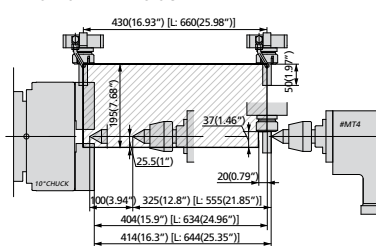


MC

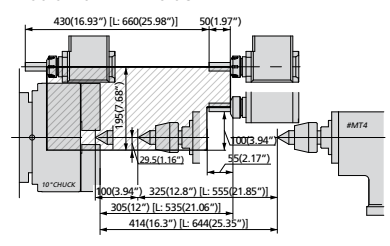
O.D Holder



Axial Turnmill Holder

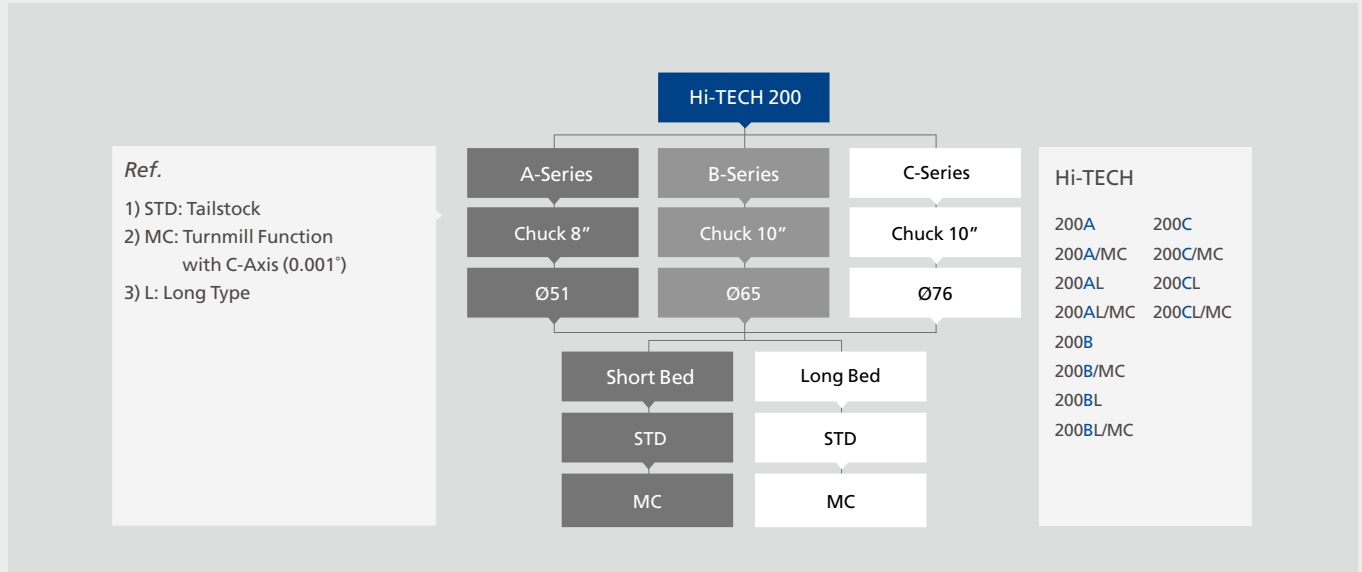


Radial Turnmill Holder



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					
Axes							
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") [2,875 x 1,675 (113.19" x 65.95")]					
Weight	kg _f (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 Oi-TD					

* [] : Long Type

Standard and Optional Product Components

[illegible]

NC Specifications [Fanuc 0i-TD]

※ - : Not available S : Standard O : Option

ITEM	SPECIFICATION	STD	MC
Controlled axis			
Controlled axis (Cs axis)	2-Axes	2-Axes	3-Axes
Simultaneously controlled axes	2-Axes	2-Axes	3-Axes
Least input increment	0.001 mm, 0.001 deg, 0.0001 inch	S	S
Least input increment 1/10	0.0001 mm, 0.0001 deg, 0.00001 inch	O	O
inch/metric conversion	G20, G21	S	S
Stored stroke check 1,2,3		S	S
Chamfering on/off		S	S
Backlash compensation		S	S
Operation			
Automatic & MDI operation		S	S
Program number search		S	S
Sequence number search		S	S
Dry run, single block		S	S
Manual handle feed	1Unit	S	S
Manual handle feed rate	x1, x10, x100	S	S
Interpolation function			
Positioning	G00	S	S
Linear interpolation	G01	S	S
Circular interpolation	G02, G03	S	S
Dwell (Per seconds)	G04	S	S
Polar coordinate interpolation	G12.1 / G13.1	-	S
Cylindrical interpolation	G7.1	-	S
Threading	G32	S	S
Multiple threading		S	S
Threading retract		S	S
Continuous threading		S	S
Variable lead threading	G34	S	S
Reference position return 1st	G28	S	S
Reference position return check	G27	S	S
2,3,4th reference position return	G30	S	S
Arbitrary speed threading		O	O
Feed function			
Rapid traverse override	F0, F25, F50, F100	S	S
Feed per minute (mm/min)	G98	S	S
Feed per revolution (mm/rev)	G99	S	S
Rapid traverse bell-shaped acceleration/deceleration		S	S
Feedrate override	0-150 13%	S	S
Jog feed override	0-1,260 mm / min	S	S
Tool function / compensation			
Tool function	T4-digits	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
Direct input tool offset value measured B	Tool presetter option is required	O	O
Others			
Display unit	10.4" Color LCD	S	S

ITEM	SPECIFICATION	STD	MC
Program input			
Tape code	EIA RS244 / ISO840	S	S
Optional block skip	1ea	S	S
Program number	O4-Digits	S	S
Sequence number	N5-Digits	S	S
Decimal point programming		S	S
Coordinate system setting	G50	S	S
Coordinate system shift		S	S
Workpiece coordinate system	G54-G59	S	S
Workpiece coordinate system preset	G92.1	S	S
Direct drawing dimension programming		S	S
G code system	A	S	S
Programmable data input	G10	S	S
Sub program call	10 folds nested	S	S
Custom macro B		S	S
Addition of custom macro common variables	#100-#199, #500-#999	S	S
Canned cycles		S	S
Multiple repetitive cycle		S	S
Multiple repetitive cycle II		S	S
Canned cycles for drilling		S	S
Small-hole peck drilling cycle		S	S
Manual Guide i		S	S
Spindle speed function			
Constant surface speed control	G96 / G97	S	S
Spindle override	50 - 120 %	S	S
Spindle orientation		S	S
Rigid tapping		O	S
Spindle synchronous control		-	-
Editing operation			
Part program storage length	1,280m (512kB)	S	S
Number of register able programs	400ea	S	S
Background editing		S	S
Extended part program editing		S	S
Play back		S	S
Clock function		S	S
Self - diagnosis function / Alarm history display		S	S
Help function		S	S
Run hour and parts count display		S	S
Graphic function		S	S
Dynamic graphic display		-	-
Multi-language display	English, German, French, Italian, Chinese, Spanish, Korean, Portuguese, Polish, Hungarian, Swedish,Russia	S	S
Data input/output			
Reader/Puncher interface CH1	R5232C	S	S
Reader/Puncher interface CH2	R5232C	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 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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