

				Serial									
				6 Series		21 Series		22 Series		210 Series		220 Series	
Category	Items	Units	Remark	6TA-E	21TA-E	21TB-E	22TA	22TB	210TB-E	210TB-E5	220TB	220TB-5	
Product Specification	Max. Controlled Paths	path		1	2		2		4		4		
	Max. Controlled Paths	path		1	1		1		3		3		
	Standard Axis	Axis		3	4	6	4	6	12		12		
	Max. Axis (Optional)	Axis		5	4	8	4	8	18		18		
	Max. Spindle	Axis		3	2	4	2	4	6		6		
	Max. Simultaneous Axis Control	Axis		3	4	4	4	4	4	5	4	5	
	Min. Control -mm			0.0001	0.0001		0.0001		0.0001		0.0001		
	Max. number of program coordinate	Set		100	100		100		100		100		
	Max. Number of Table Tools	Set		32	96	96	96	96	96	96	96	96	
	Multi-Channel Function Group	Set		4	4	4	4	4	4	4	4	4	
Block Processing Time			300	500	500	1000	1000	1000		1000			
Hardware Specification	Storage(DISKA)	MB		4096		4096		4096		4096			
	I/O	RIO	Point	64/64									
		SRI		0	0		0		0		0		
		Direct I/O	Point	32/32	32/32		-		32/32		-		
	DA	Set		2	2		-		2		-		
	Type and Size	All-in-One Machine	Inch		8"	8"/10.4"		8"/10.4"/15"		8"/10.4"	10.4"	10.4"/15"	
		Full-Plane All-in-One Machine	Inch		-	-		10.4"/15"		-		10.4"/15"	
		Back Half Machine			-	0		-		0	-	-	
	USB	Set		2	2		2		2		2		
	RJ-45	Set		1	1		2		1		2		
	VGA Output	Set		-	1*		-		1*	-	-		
	RS-485	Set		1	1		1		1		1		
	USB	Set		-	0		2		-		2		
	SRI	Set		1	1		1		1		1		
Servo Control	Mechatrolink III / EtherCat / RTEX			0	0		0		0		0		
Category	Items	Remark	Software Function	6 Series	21 Series	22 Series	210 Series		220 Series				
Compensation	Backlash Compensation			0	0		0		0				
	Pitch Error Compensation			0	0		0		0				
	Angular Error Compensation			0	0		0		0				
	Temperature Error Compensation			0	0		0		0				
	2D Error Compensation			0	0		0		0				
Operation	MPG Simulation			0	0		0		0				
	Dry Run			0	0		0		0				
	Optional Stop			0	0		0		0				
	Single Block			0	0		0		0				
	Virtual MPG			0	0		0		0				
	Restart at Feedhold			0	0		0		0				
	Restart at Break Point			0	0		0		0				
	Tool Return			-	-		-		-				
Fixture Offsets			0	0		0		0					
MPG Offsets			-	-		-		-					
Programming	Optional Skip			0	0		0		0				
	B-stop/Terminator Program			0	0		0		0				
	Absolute Zero Point Coordinate	G92/G92.1		0	0		0		0				
	Interrupt Macro	M96/M97		0	0		0		0				
	M198 call Subroutines			0	0		0		0				
Expandable G Code			0	0		0		0					
HSHP	Constant Jerk Control			0	0		0		0				
	Multiblocks S-curve motion plan			0	0		0		0				
	Auto declaration in Corner			0	0		0		0				
	Speed Limit for Round Radius			0	0		0		0				
	Multiple Sets of HSHP Parameters			-	-		-		-				
	Quick Parameter Setup			-	-		-		-				
	SPA Feature			-	0		0		0				
	Virtual Radius Function			0	0		0		0				
	HSHP Control Mode I	G05.1Q1		-	-		-		-				
	HSHP Control Mode II	G05P10000	OP11	-	-		-		-				
NURBS Interpolation Ability			-	-		-		-					

Remark :

*VGA Only in the Back Half

**Only Support Driven Tool Application

○: Standard Function/ △: Optional Function/ -: Not Available Function



Category	Items	Remark	Software Function	Serial							
				6 Series 6TA-E	21 Series 21TA-E	21TB-E	22 Series 22TA 22TB	210 Series 210TB-E	210TB-E5	220 Series 220TB	220TB-5
Tool Management	Auto Tool Measuring			-	-	-	-	-	-	-	-
	Auto Tool Management	Works with Renishaw hardware only		o	o	o	o	o	o	o	
	Tool Life Management			o	o	o	o	o	o	o	
Tool Magazine	ROT Servo Turret	PLC Element	OP32	o	o	o	o	o	o	o	
Spindle	Support Syntec Spindle			- (**)	o	o	o	o	o	o	
Facilitating Functions	Machine Lock (R bit)			o	o	o	o	o	o	o	
	Software Limit			o	o	o	o	o	o	o	
	Spindle Speed Arrival Check			o	o	o	o	o	o	o	
	Axis Synchronize Feature			o	o	o	o	o	o	o	
	Dynamic Axis Synchronize Feature			o	o	o	o	o	o	o	
	Feedback Synchronize Feature			o	o	o	o	o	o	o	
	Rapid Retraction for Rigid Tapping			o	o	o	o	o	o	o	
	Virtual Axis Feature			o	o	o	o	o	o	o	
	Axis Change Feature			o	o	o	o	o	o	o	
	Axial Torque Limit			o	o	o	o	o	o	o	
	Serial Bus Setting Feature(CNC Axis)			o	o	o	o	o	o	o	
	Driver Information Display(CNC Axis)			o	o	o	o	o	o	o	
	Spindle Application Feature(CNC Axis)			o	o	o	o	o	o	o	
	Serial Bus PLC Axis			o	o	o	o	o	o	o	
	High-speed Spindle Positioning	Support Syntec Spindle		o	o	o	o	o	o	o	
	Dipole Front and Back System			-	o	o	o	o	o	o	
	Data Backup Recovery	Maker Backup		o	o	o	o	o	o	o	
	Customized Opening Screen			o	o	o	o	o	o	o	
	My Favorites	Only eight key system supports		o	o	o	o	o	o	o	
	Project Protection Feature			o	o	o	o	o	o	o	
Limit Access Manager			o	o	o	o	o	o	o		
RemoteAP Monitor			o	o	o	o	o	o	o		
Right-Angle All In One		OP20	Δ	Δ	Δ	Δ	Δ	Δ	Δ		
3D-Arc Interpolation		OP19	-	-	-	-	-	-	-		
Program Edit	Background Edit			o	o	o	o	o	o	o	
	Edit Protection			o	o	o	o	o	o	o	
	Immediate Grammar Check			o	o	o	o	o	o	o	
PLC	PLC Diagnosis Feature(FORCE I Point)			o	o	o	o	o	o	o	
Data Transfer	NETWORK			o	o	o	o	o	o	o	
	FTP			o	o	o	o	o	o	o	
	RS-485			o	o	o	o	o	o	o	
	DNC(Network)			o	o	o	o	o	o	o	
Information Display	DNC(USB)			o	o	o	o	o	o	o	
	Operation CV Display			o	o	o	o	o	o	o	
	Graphic Simulation			o	o	o	o	o	o	o	
	Partial Graphic Simulation			o	o	o	o	o	o	o	
5 Axis Feature	Dynamic Multi-Language Switch			o	o	o	o	o	o	o	
	Feature Coordinate System(Inclined Plane Processing)	G68.2 · G68.3	OP13	-	-	Δ	Δ	Δ	Δ	Δ	
	The Second Axis Group supports Feature Coordinate System		OP28	-	-	Δ	Δ	Δ	Δ	Δ	
	5 Axis RTCP	G43.4 · G43.5	OP12	-	-	-	-	Δ	Δ	Δ	
	4 Axis RTCP		OP29	-	-	-	-	-	-	-	
	Multiple Mechanism-Chain	G10 L5000 P_ Q _	OP27	-	-	Δ	Δ	Δ	Δ	Δ	
G Code Command	Five-Axis Mechanism Chain Measurement	RENISHAW · SYNTEC		-	-	-	-	-	-	-	
	Spiral Interpolation	G02/G03		-	o	o	o	o	o	o	
	Elliptical Cutting(clockwise)	G02.1		o	o	o	o	o	o	o	
	Parabolic Cutting(clockwise)	G02.2		o	o	o	o	o	o	o	
	Cylindrical Interpolation	G07.1		o	o	o	o	o	o	o	
	Start Polar Coordinate Interpolation	G12.1		o	o	o	o	o	o	o	
	Outer diameter/Inner Diameter Turning Cycle	G20		o	o	o	o	o	o	o	
	Thread Turning Cycle	G21		o	o	o	o	o	o	o	
	Thread Turning Middle Feed Cycle	G21.2		o	o	o	o	o	o	o	
	End-Face Turning Cycle	G24		o	o	o	o	o	o	o	
	Jumping Function	G31		o	o	o	o	o	o	o	
	Thread Cutting	G33		o	o	o	o	o	o	o	
	Variable-Pitch Thread Cutting	G34		o	o	o	o	o	o	o	
	Polygon Cutting	G51.2		o	o	o	o	o	o	o	
	Work Coordinate System Setting	G54~G59.9		o	o	o	o	o	o	o	
	Mirror Function(Lathe)	G68		o	o	o	o	o	o	o	
	Duplex Cutting Cycle	G72~G78		o	o	o	o	o	o	o	
	Drilling Fixed Cycle	G80 · G83~G89		o	o	o	o	o	o	o	
	Absolute Zero Coordinate System Preset	G92.1		o	o	o	o	o	o	o	
	Inverse Time Feed	G93		-	-	-	-	-	-	-	
	Constant Surface Cutting Speed	G96		o	o	o	o	o	o	o	
	Spindle Synchronization Function	G114.1		-	o	o	o	o	o	o	
Spindle Bearing Function	G114.3		-	o	o	o	o	o	o		

Remark :

*VGA Only in the Back Half

**Only Support Driven Tool Application

o: Standard Function/ Δ: Optional Function/ -: Not Available Function

*SYNTEC have the right to modify