

**Features:**

- Adopt similar structure as JAPAN MAZAK, bed adopt flat bed, slide board adopt 30° slant design, high rigidity, good machining flexibility
- Adopt JAPAN technology, designed by JAPAN engineer, most parts adopt GERMANY/JAPAN/TAIWAN brand
- Adopt modularization design, has strong extended function, easy for various especial configuration choice, such as tool setter, parts catcher, robot etc
- Adopt HT300 resin sand cast iron, after aging treatment and FEA analysis, small distortion, good torsional strength, good heat stability
- Base adopt multilayer strengthening rib, ensure bed's strength and stability
- Frame adopt oil-coolant separation design, adopt independent coolant tank
- Adopt high precision integral spindle unit, spindle motor adopt high performance servo motor, big output torque, high speed, wide adjustment range
- Adopt high precision pre-stretched ball screw(double nuts), coupled with motor directly by linkager, high transmission rigidity, can realize  $\mu$  class precise turning.
- Adopt high precision ROLLER type linear guideway, high rigidity, good accuracy holding, suitable for heavy loading and precise machining
- Adopt Hydraulic-servo tool turret/powered tool turret, fast tool changing, good repeatability, high efficiency
- S205/205M/205Y adopt especial structure programmable tailstock, tailstock quill not move, whole tailstock body driven by hydraulic cylinder on linear guideway
- S205SM/205SY adopt high precision electro-spindle as Sub-spindle
- S205: 8T/12T hydraulic-servo tool turret+tailstock; S205M: 12T powered tool turret+CS axes+tailstock; S205Y: 12T powered tool turret+YS axes+tailstock; S205SM: 12T powered tool turret+CS axes+Sub-spindle ; S205SY: 12T powered tool turret+YS axes+Sub-spindle



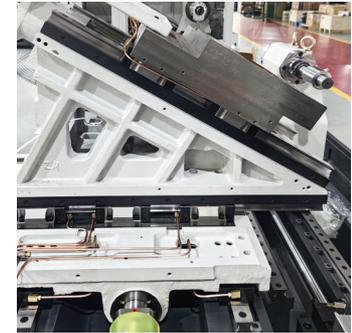
Similar structure as MAZAK



S205 205M 205Y hydraulic programmable tailstock



S205SY frame



S205Y 205SY YS axes



S205SM 205SY Sub-spindle guideway



S205SM 205SY Sub-spindle CS axes and hydraulic brake



S205 8T hydraulic-servo tool turret



S205SM 205SY 12T SAUTER powered tool turret

### Main parts list:

Item	Brand	Item	Brand
CNC controller	GERMANY-SIEMENS/JAPAN-FANUC	Working lamp	JAPAN-NIKKI
Servo driver&motor	GERMANY-SIEMENS/JAPAN-FANUC	Breaker	FRANCE-SCHNEIDER
Spindle bearing	JAPAN-NSK/SWEDEN-SKF	AC contactor	FRANCE-SCHNEIDER
Tool turret	OWN-MADE/GERMANY-SAUTER	Relay	JAPAN-OMRON
Ball screw	TAIWAN-PMI/HIWIN	DC switch power supply	FRANCE-SCHNEIDER
Ball screw bearing	JAPAN-NSK/SWEDEN-SKF	Terminal block	GERMANY-WEIDMULLER
Linear guideway	TAIWAN PMI/HIWIN	Synchronous belt	USA-GATES
Lubrication system	TAIWAN-ISHAN	Synchronous belt wheel	TAIWAN-PTP
Rotary oil cylinder&chuck	TAIWAN-AUTOGRIP/KOREA-SAMCHULLY	Nuts	TAIWAN-YINSH
Hydraulic parts	TAIWAN/JAPAN	Shaft coupling	GERMANY-R+W
Coolant pump	JOINT-VENTURE	Scrapping plate Extensible cover	JAPAN-LOCOSO
Tri-color indication lamp	CHINA-SUNNYSH	Chip conveyor&chip bucket	TAIWAN-WANHE

### Standard configuration:

- SIEMENS/FANUC CNC controller
- Hydraulic chuck

### Optional configuration:

- Tool setting probe
- Parts catcher

Specification:								
Item	Specification	Unit	BL-S205	BL-S205M	BL-S205Y	BL-S205SM	BL-S205SY	
Capacity	Max. swing dia. over bed	mm	Φ550	Φ630	Φ700	Φ630	Φ700	
	Max. swing dia. over slide	mm	Φ290	Φ300	Φ200	Φ300	Φ200	
	Max. turning length	mm			530			
	Max. turning dia.	mm	Φ380	Φ370	Φ370	Φ370	Φ370	
Spindle	Spindle transmission type	/	Mechanical spindle, belt-drive					
	Spindle bore	mm	Φ66	Φ63	Φ63	Φ63	Φ63	
	Spindle end type	/	A2-6					
	Spindle speed	rpm	4500					
	Spindle max. bar through dia.	mm	Φ51					
	Spindle motor power	kw	11/15(FANUC);11(SIEMENS)					
	Spindle chuck size	"	8"					
	Spindle C axes division accuracy	Deg	/	0.001°	0.001°	0.001°	0.001°	
Sub-spindle	Sub-spindle transmission type	/	/	/	Electro-spindle, direct-drive			
	Sub-spindle bore	mm	/	/	Φ56			
	Sub-spindle end type	/	/	/	A2-5			
	Sub-spindle rated/max. speed	rpm	/	/	1700/5000			
	Sub-spindle max. bar through dia.	mm	/	/	Φ44			
	Sub-spindle motor power	kw	/	/	15(FANUC); 20(SIEMENS)			
	Sub-spindle chuck size	"	/	/	6"			
	Sub-spindle rapid moving speed	m/min	/	/	30			
	Sub-spindle travel	mm	/	/	520			
X/Y/Z axes	X/Y/Z axes linear guideway type	/	ROLLER type					
	X axes travel	mm	190+10	185+15	185+15	185+15	185+15	
	Y axes travel	mm	/	/	±50	/	±50	
	Z axes travel	mm	550	570	550	570	550	
	X/Z axes rapid moving speed	m/min	30					
	Y axes rapid moving speed	m/min	/	/	12	/	12	
Tool turret	Tool turret type	/	Hydraulic-servo tool turret	BMT55 Powered tool turret				
	Tool turret brand	/	Own-made/SAUTER					
	Tool qty	/	8T(opt.:12T)	12T	12T	12T	12T	
	Vicinal tool changing time	s	0.2					
	Farthest tool changing time	s	0.5					
	Turning tool holder size	mm	S205: 25×25(Own-made 8T,SAUTER 8T/12T);20×20(Own-made 12T) S205M/205Y/205SM/205SY: 25×25					
	Boring bar holder size	mm	S205: Φ40(Own-made 8T,SAUTER 8T/12T);Φ32(Own-made 12T) S205M/205Y/205SM/205SY: Φ40					
	Live tool motor power	kw	/	3.3(SIEMENS);4.5(FANUC)				
	Live tool motor torque	Nm	/	16(SIEMENS);18(FANUC)				
	Live tool max. speed	rpm	/	5000(SIEMENS);6000(FANUC)				
Tailstock	Tailstock movement distance	mm	470	500	500	/	/	
	Tailstock rapid move speed	m/min	Servo tailstock:30; Hydraulic tailstock: 10					
	Tailstock quill taper	/	MT4#					
Accuracy	Ex-circle finish turning accuracy	/	IT6					
	Finish turning roughness	mm	Ra0.4~1.6					
	Finish turning roundness	mm	≤0.003					
	Positioning accuracy(X/Z)	mm	0.005/0.008					
	Positioning accuracy(Y)	mm	/	/	0.008	/	0.008	
	Repeat positioning accuracy(X/Z)	mm	0.002/0.004					
	Repeat positioning accuracy(Y)	mm	/	/	0.004	/	0.004	
Others	Coolant pump motor	w	480					
	Coolant pump flow	m³/h	2.5					
	Overall size	mm	2500/3500×1800×1800 (exclude/include chip conveyor)			2690/3590×1810×1850 (exclude/include chip conveyor)		
	N.W.	kg	4000	4000	4200	4400	4500	