

A KG5A Series adopts HIWIN C3 class ballscrew. X/Z-axis is driven by dual screw and Y-axis is driven by single screw with cooling system to avoid ballscrew thermal increment. Those features improve 3-axis dynamic performance.

B KG5A Series with Siemens 840DSL controller increases work efficiency. Heidenhain-ITNC 530 controller is available as option for extensive requirements from customers.

C 3 axes adopt INA RUE series linear guideway to perform high rigidity while 3 axes are functioning.

D 3 axes with Heidenhain Linear Scale and closed loop control can improve the accuracy effectively.



QUALITY ASSURANCE

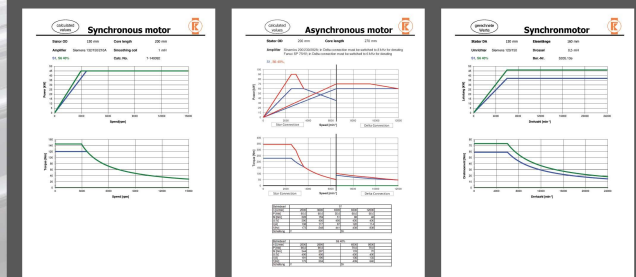
Adequate inspection facility and strict testing procedure assure 100% best quality per each major component on machine.



POWER TORQUE DIAGRAM 000_675_519

POWER TORQUE DIAGRAM 000_665_172

POWER TORQUE DIAGRAM 000_681_520 15K



KG5A Specification

Model	KG5A-2025 /KG-2025	KG5A-3025 /KG-3025	KG5A-4025 /KG-4025	KG5A-5025 /KG-5025	KG5A-6025 /KG-6025	KG5A-3030 /KG-3030	KG5A-4030 /KG-4030	KG5A-5030 /KG-5030	KG5A-6030 /KG-6030		
Parts	Specification	Unit									
Dual Axes Milling Head	X-axis Travel	mm	2000	3000	4000	5000	6000	3000	4000	5000	6000
	Y-axis Travel	mm				2500				3000	
	Z-axis Travel	mm				1000					
	Distance from Spindle Nose to Table Surface	mm				200~1200					
	Distance between Two Columns	mm				480~1480					
	X-axis Rapid Travel Rate	m/min	20 (Direct Driven)		3200		20 (Direct Drives)		20 (Gear Box)		
	Y-axis Rapid Travel Rate	m/min	20 (Direct Driven)								
	Z-axis Rapid Travel Rate	m/min	20 (Direct Driven)								
	X/Y/Z-axis Acceleration	m/s²	2 / 2 / 2								
	Cutting Rate	m/min	20								
	Table Dimension(X*Y)	mm	2000x2500	3000x2500	4000x2500	5000x2500	6000x2500	3000x3000	4000x3000	5000x3000	6000x3000
	T-slotted size x pitch	mm	22 X 200								
	Max. Loading Capacity	kg	15000	18750	25000	31250	37500	22500	30000	37500	45000
	A-axis										
	ATC	Max. Speed	rpm	100							
Torque(S1/S6-40%)		Nm	(764/1200) / (P64/1200) / (1360/2720)								
Clamping System		Nm	(1200/2160) / (1200/2160) / (7300/9900)								
Rotary Range		degree	±105								
C-axis											
Max. Speed		rpm	100								
Torque(S1/S6-40%)		Nm	(810/1100) / (810/1100) / (2100/3200)								
Clamping System		Nm	(1675/3025) / (1675/3025) / (7300/9900)								
Rotary Range		degree	±200								
Spindle											
Power(S1/S6-40%)		kW	(37/46 - HSK A63) / (45/45 - HSK A100) / (60/50 - HSK A100)								
Torque(S1/S6-40%)		Nm	(80/73 - HSK A63) / (120/145 - HSK A100) / (229/345 - HSK A100)								
Speed		rpm	24000 (HSK A63) / 15000 (HSK A100) / 12000 (HSK A100)								
Spindle Taper		mm	24000 RPM HSK A63 / 15000 RPM HSK A100 /								
Controller		ATC Magazine Capacity	pc	16							
	Max. Tool Diameter/Without Adjacent Tools	mm	(Ø100 / Ø180 HSK A63) / (Ø125 / Ø215 HSK A100)								
	Max. Tool Length	mm	200								
	Max. Tool Weight	kg	7 (HSK A63) / 15 (HSK A100)								
		Siemens 840DSL / OP-Heidenhain ITNC 530									
Accuracy	Positioning	mm	±0.015								
	Positioning X/Z-axis	mm	P±0.02 / FULL TRAVEL								
	Positioning Y-axis	mm	P±0.02 / FULL TRAVEL	P±0.05 / FULL TRAVEL	P±0.02 / FULL TRAVEL	P±0.05 / FULL TRAVEL	P±0.02 / FULL TRAVEL	P±0.02 / FULL TRAVEL	P±0.02 / FULL TRAVEL	P±0.02 / FULL TRAVEL	
	Repeatability	mm	±0.01								
	Repeatability X/Z-axis	mm	P±0.02								
	Repeatability Y-axis	mm	P±0.02								
	Dimensional Accuracy	mm	P±0.02								
	Compressed Air Supply	kg/cm²	6								
	Power Supply	KVA	200KVA	200KVA	200KVA	200KVA	200KVA	200KVA	200KVA	200KVA	
	Max. workpiece Capacity	mm	2500x2000x1000	2500x3000x1000	2500x4000x1000	2500x5000x1000	3000x6000x1000	3000x8000x1000	3000x10000x1000	3000x12000x1000	
Note	Weight	kg	34000	38000	42000	46000	50000	44000	48000	52000	
	KAFO reserves the right to modify the specifications: 1.The height of machine is 450mm further decreased if foundation is further deepen. 2.The arm rotary range is excluded from layout drawing. 3.Table Size										
	Servo Motor Model	X-axis Motor*2	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A	1P815-2P52-00A
		Y-axis Motor	27.2KW	27.2KW	27.2KW	29KW	29KW	27.2KW	27.2KW	27.2KW	29KW
Z-axis Motor*2		18KW	18KW	18KW	18KW	18KW	18KW	18KW	18KW	18KW	
Note	Interpretation is not a strict reference. The actual motor applied is based on Siemens Calculation										

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KAFO

Gantry Type 5-axis Machining Center

KG / KG5A



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A

(Option: Siemens 840DSL or Heidenhain TNC 530.)

C

D

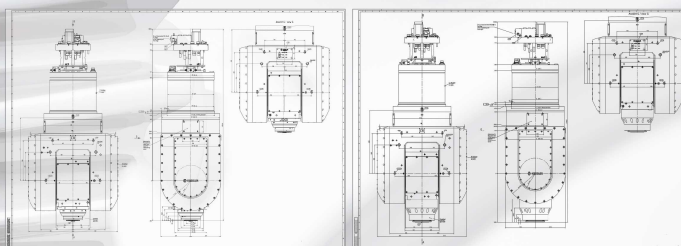
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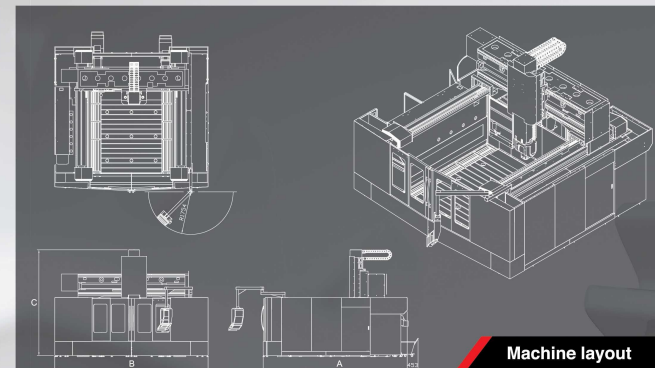
* Model KG5A-3025



HSK A100 15000rpm



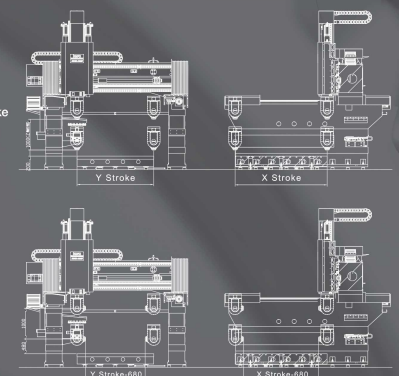
Supplier	Kessler			
Model	Small 2AK-G3		Medium 2AK-G3	
Spindle	Model	SMS 637.673	SMS 630.251	SMS 665.172
	Torque (S1/S6 40%)	Nm 119/144	60/73	228/245
	Power (S1/S6 40%)	kW 25/30	37/46	60/90
	Speed	rpm 12000	24000	12000
	Spindle Taper	HSK A100	HSK A63	HSK A100
	Bearing Lubrication	Oil-air	Oil-air	Oil-air
A-axis	Torque (S1/Smax)	Nm 764 / 1150		1360 / 2720
	Clamping Torque (P0/Pmax)	Nm 1200 / 2160		2220/7300
	Max. Speed	rpm 30		100
	Rotary Range	° ±105		±105
	Positioning Accuracy	° ±5		±5
C-axis	Torque	Nm 810 / 1100		2100 / 3200
	Clamping Torque (P0/Pmax)	Nm 1675 / 3025		3100 / 9900
	Max. Speed	rpm 30		60
	Rotary Range	° ±200		±200
	Positioning Accuracy	° ±3		±3
	Weight	kg 580		1150
	Note	Oil-mist Lubrication equipped		



Machine layout

Storke	KG-XX25					KG-XX30				KG-XX35		
A	5000	6000	7000	8000	6000	7000	8000	9000	7000	8000	9000	
B	6400					6900				7400		
C						4162-5162						

Tool Type : HSK A6



Storke	KG-XX25				KG-XX30			
X	2000	3000	4000	5000	3000	4000	5000	6000
Y	2500				3000			
Z	1000							