

HSA标准附件 / HSA Standard accessories

1	FANUC Oi MF Plus控制器	FANUC Oi MF Plus controller
2	主轴转速 6000rpm,50#,齿轮式	Spindle speed 6000rpm, 50 #, gear type
3	主轴油冷系统	Spindle oil cooler unit
4	主轴锥孔清洁吹气	Air purge
5	主轴切削负载软体保护	Soft protection for spindle cutting load
6	自动润滑装置	Auto. Lubrication unit
7	三轴润滑油独立收集装置	Independent collection device for lubricating oil
8	三轴行程极限硬体保护	XYZ axis travel limit hardware protection
9	清洁水枪及空气接口	Cleaning water gun and air interface
10	切削液冷却系统	Coolant unit
11	工作区域工作灯	Working lamp
12	程式结束灯及警示灯	Program end and warning light
13	全罩式钣金防护 (不含上部)	Fully enclosed protective guaring (excluding top cover)
14	工作台侧捲屑装置	Chip auger device
15	链条式铁屑输送机及水箱	Chain type chip conveyor and water tank
16	操作箱及操作面板	Operation box
17	分离式手轮	Portable MPG
18	主轴松夹开关(脚踏式)	Foot padel for spindle clamp/unclamp
19	合格电气箱	Qualified electrical cabinet
20	热交换器	Heat Exchanger
21	RJ45网络传输介面	RJ45 network interface
22	自动断电功能	Automatic power-off function
23	水平垫块及基础螺栓	Leveling pads and bolts for foundation adjustment
24	调整用工具及工具箱	Tools and toolbox
25	技术手册(操作、保养手册及电路图)	Technical manual (operation, maintenance manual, and circuit diagram)

HSB标准附件 / HSB Standard accessories

1	Fanuc Oi MF控制器	Fanuc Oi MF controller
2	主轴转速15000rpm 直结式主轴(BBT-40)	In-line Spindle at speed 15000rpm, BBT-40
3	主轴油冷系统	Spindle oil cooler unit
4	主轴锥孔清洁吹气	Air purge
5	主轴切削负载软体保护	Soft protection for spindle cutting load
6	自动润滑装置	Auto. Lubrication unit
7	三轴润滑油独立收集装置	Independent collection device for lubricating oil
8	三轴行程极限硬体保护	XYZ axis travel limit hardware protection
9	清洁水枪及空气接口	Cleaning water gun and air interface
10	切削液冷却系统	Coolant unit
11	工作区域工作灯	Working lamp
12	程式结束灯及警示灯	Program end and warning light
13	24把刀自动换刀系统(刀臂式)	24 tools arm type automatic tool changing system
14	全密闭式防护钣金(含顶面)	Fully enclosed protective sheet metal (including top surface)
15	工作台侧中空式捲屑装置	Hollow type chip auger device
16	链条式铁屑输送机及水箱	Chain type chip conveyor and water tank
17	操作箱及操作面板	Operation box
18	分离式手轮	Portable MPG
19	主轴松夹开关(脚踏式)	Foot padel for spindle clamp/unclamp
20	合格电气箱	Qualified electrical cabinet
21	热交换器	Heat Exchanger
22	RJ45网络传输介面	RJ45 network interface
23	自动断电功能	Automatic power-off function
24	XYZ轴光学尺	Linear scales for 3 axes
25	水平垫块及基础螺栓	Leveling pads and bolts for foundation adjustment
26	调整用工具及工具箱	Tools and toolbox
27	技术手册(操作、保养手册及电路图)	Technical manual (operation, maintenance manual, and circuit diagram)

HSA选购附件 / HSA Optional accessories

1	SIEMENS控制器	SIEMENS controller
2	10000rpm, 50#直结式主轴	10000rpm, 50 # in-line spindle
3	15000rpm, 40#直结式主轴	15000rpm, 40 # in-line spindle
4	Z轴行程升级至1000mm	Z-axis travel upgrade to 1000mm
5	HSA-50/70系列立柱加高200mm	Column height increase by 200mm (HSA-50/70 series)
6	HSA-87系列立柱加高200/300/400/500mm	Column height increase by 200/300/400/500mm (HSA-87 series)
7	24T/32T/40T刀库及刀臂式自动换刀系统	Arm type 24T/32T/40T tools automatic tool change
8	三轴光学尺	Linear scales for 3 axes
9	主轴中心出水系统20 bar	Coolant through spindle device 20 bar pressure
10	主轴中心出水系统70bar	Coolant through spindle device 70 bar pressure
11	主轴中心出水系统预留介面	Reserved interface for Coolant through spindle
12	切削液油水分离装置	Oil skimmer unit
13	切削油雾回收装置	Oil-mist collection unit
14	全密式钣金(含顶面)	Fully enclosed guarding (including top cover)
15	铁屑车	Chip bucket
16	冷却空调机	Air conditioner
17	变压器	Power transformer
18	预留第四轴介面	4th axis interface preparation
19	自动刀长量测	Automatic tool length measurement
20	自动工件量测	Automatic workpiece measurement

HSB选购附件 / HSB Optional accessories

1	SIEMENS控制器	SIEMENS controller
2	内藏式主轴20000/24000/28000rpm(HSK-A63)	Built-in spindle 20000/24000/28000rpm (HSK-A63)
3	内藏式主轴10000/12000 rpm(50#,HSK-A100)	Built-in spindle 10000/12000 rpm (50 #, HSK-A100)
4	直结式主轴10000/12000rpm(50#,HSK-A100)	In-line spindle 10000/12000rpm (50 #, HSK-A100)
5	三轴快速进给速率30m/min	Fast rapid feed rate 30m/min
6	Z轴行程升级至1000mm	Z-axis travel upgrade to 1000mm
7	立柱加高200mm	Column height increase by 200mm
8	32/40把刀刀库及刀臂式自动换刀系统	32/40 tools ATC arm type
9	主轴中心出水系统20 bar	Coolant through spindle device 20 bar pressure
10	主轴中心出水系统70bar	Coolant through spindle device 70 bar pressure
11	主轴中心出水系统预留介面	Reserved interface for Coolant through spindle
12	切削液油水分离装置	Oil skimmer unit
13	切削油雾回收装置	Oil-mist collection unit
14	工作台冲屑装置	Top wash down device for working area
15	铁屑车	Chip bucket
16	冷却空调机	Air conditioner
17	变压器	Power transformer
18	预留第四轴介面	4th axis interface preparation
19	自动刀长量测	Automatic tool length measurement
20	自动工件量测	Automatic workpiece measurement



HS

高速龙门加工中心机

High-speed Double Column
Machining Center



HS Series High-speed Double Column Machining Center

HSA

高速龙门加工中心机



HSA作为高速龙门加工中心机，专为各种基础大件、模具等多种精密零件设计。

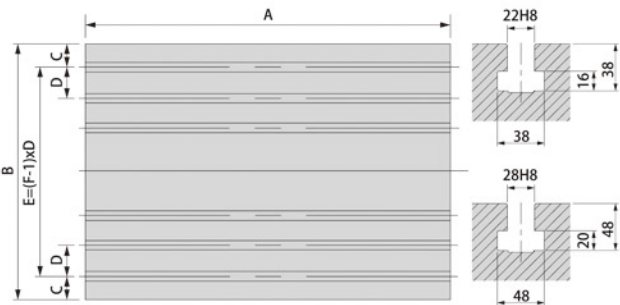
- 良好的结构设计，超强的主体结构
- 立柱横梁一体式铸造，高刚性设计
- 对称结构设计，有效降低热变形

广泛应用于汽车、航空航天、医疗机械、船舶等领域。

HSA series, as a high-speed double column machining center, is specially designed for various precision parts.

- A strong machine structure with better design
- Integrated casting of column and crossbeam with high rigidity design
- Symmetric structural design, effectively reduces thermal deformation

Widely used in areas such as automobiles, aerospace, medical machinery, and ship industry.



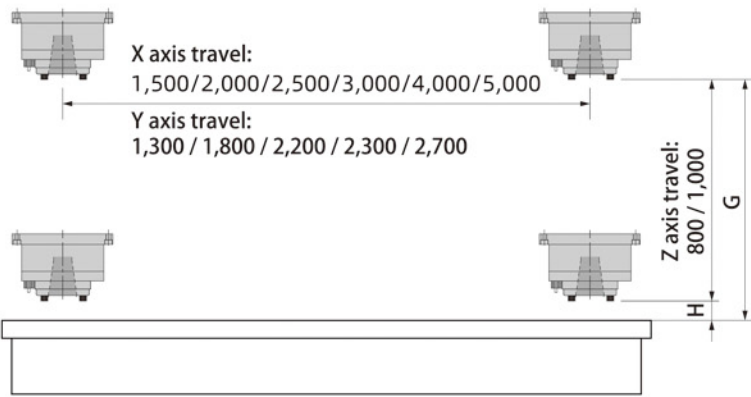
工作台示意图 / Worktable diagram

单位/unit: mm

机型/Model	Type	T型槽/T-slot	A	B	C	D	E	F
HSA-50	A	T22	1,800	1,000	20	160	1,280	7
	B	T22	2,300	1,000	20	160	1,280	7
	C	T22	2,800	1,000	20	160	1,280	7
HSA-70	A	T22	1,800	1,500	110	160	1,280	9
	B	T22	2,300	1,500	110	160	1,280	9
	C	T22	2,800	1,500	110	160	1,280	9
	D	T22	3,300	1,500	110	160	1,280	9
HSA-87	A	T28	2,800	2,000	100	180	1,800	11
	B	T28	3,300	2,000	100	180	1,800	11
	C	T28	4,300	2,000	100	180	1,800	11
	D	T28	5,300	2,000	100	180	1,800	11
	E	T28	6,300	2,000	100	180	1,800	11

主轴加工行程示意图 /

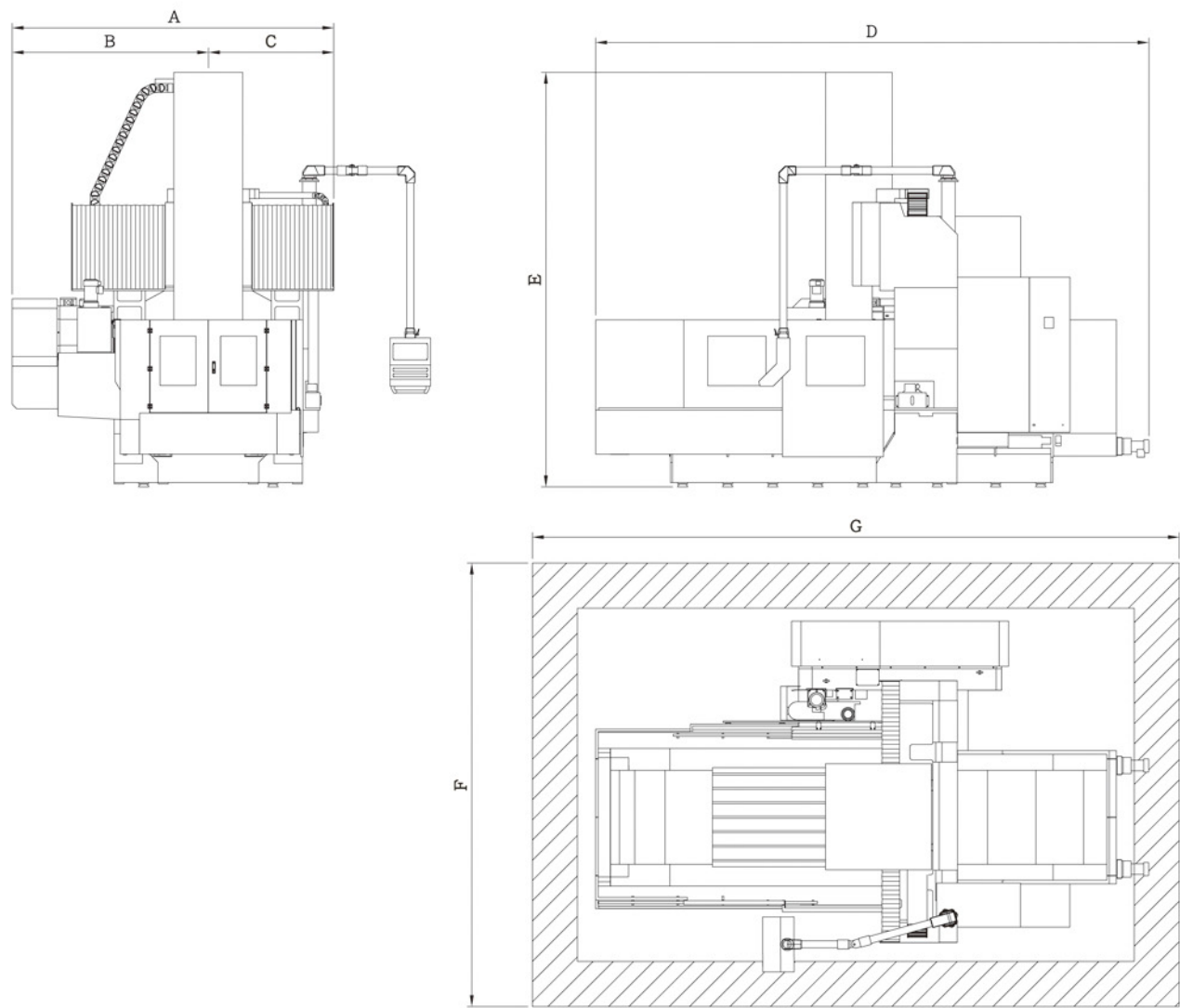
Diagram of spindle machining travel



单位/unit: mm

Z轴行程/Z-axis travel	主轴型式/Spindle	H	G
800	齿轮式50#/2-step gear 50#	200	1,000
	内藏式50#/Built-in type 50#	160	960
	直结式40#/Direct-driven 40#	215	1,015
	直结式50#/Direct-driven 50#	200	1,000
1,000	齿轮式50#/2-step gear 50#	200	1,200
	内藏式50#/Built-in type 50#	160	1,160
	直结式40#/Direct-driven 40#	215	1,215
	直结式50#/Direct-driven 50#	200	1,200

机器外形图 / Machine layout drawing



单位/unit: mm

机型/Model	Type	A	B	C	D	E	F	G
HSA-50	A	4,000	2,550	1,450	5,200	Z:800=4,300 Z:1,000=4,700	5,500	6,800
	B				6,200			7,800
	C				7,500			9,000
HSA-70	A	4,600	2,900	1,700	5,800		6,000	7,500
	B				6,800			8,300
	C				8,000			9,500
	D				9,000			10,800
HSA-87	A	5,200	3,300	1,900	7,800		6,600	10,500
	B				9,000			11,500
	C				11,500			13,800
	D				13,500			16,000
	E				14,800			18,500

机械规格表 / Specification

机型/Model			单位 Unit	HSA-50			HSA-70			
				A	B	C	A	B	C	D
行程/Travel										
X轴行程/X-axis travel			mm	1,500	2,000	2,500	1,500	2,000	2,500	3,000
Y轴行程/Y-axis travel			mm	1,300			1,800			
Z轴行程/Z-axis travel			mm	800/1,000						
工作台/Table										
工作台面积/Table size(X direction × Y direction)			mm	1,800×1,000	2,300×1,000	2,800×1,000	1,800×1500	2,300×1,500	2800×1,500	3,300×1,500
T型槽/T-slot(width × number × pitch)			mm	22×7×160			22×9×160			
工作台最大载重/Max. table load			kg	6,000	8,000	10,000	7,000	8,000	10,000	12,000
门宽/Distance between columns			mm	1,380			1,820			
主轴/Spindle										
主轴中心至立柱距离/Distance from spindle center to column			mm	450						
主轴鼻端至 工作台距离/ Distance from spindle nose to table	齿轮式50#/ 2-step gear 50#	Z轴/Z-axis=800	mm	200-1,000						
		Z轴/Z-axis=1000	mm	200-1,200						
	直结式40#/ Direct-driven 40#	Z轴/Z-axis=800	mm	215-1015						
		Z轴/Z-axis=1000	mm	215-1215						
主轴转速/Spindle speed(2-step gear)			rpm	6,000						
主轴马力/Spindle power (cont./30 min.)			kw	15/18.5			22/26			
主轴输出扭力/Spindle torque (cont./30 min.)			Nm	707/1,163			691/817			
主轴锥孔/Spindle taper			-	ISO 50						
进给/Feed										
切削进给速率/Cutting feed rate			m/min	1-15						
快速位移速率(X/Y/Z)/Rapid traverse(X/Y/Z)			m/min	20/20/15						
自动换刀(选配)/ATC(optional)										
刀库容量 /Tool magazine capacity			pcs	24/32/40						
刀柄型式/Tool shank			-	BT50						
最大刀具长度/Max.tool length			mm	400						
最大刀具直径/Max.tool dia.			mm	125/250						
最大刀具重量/Max.tool weight			kg	18						
精度/Accuracy										
定位精度/Position accuracy(VDI-3441)			mm	P0.01			P0.013			
重现精度/Repeatability(VDI-3441)			mm	Ps0.006			Ps0.010			
其他/Other										
电力需求/Power requirement			KVA	50						
气压压力需求/Pneumatic requirement			kg/cm²	6						
机器总重/Machine gross weight			kg	18,800	21,300	23,800	22,800	25,800	28,300	31,800

* Specifications are subject to change without notice.

机械规格表 / Specification

机型/Model			单位 Unit	HSA-87				
				A	B	C	D	E
行程/Travel								
X轴行程/X-axis travel			mm	2,500	3,000	4,000	5,000	6,000
Y轴行程/Y-axis travel			mm	2,200				
Z轴行程/Z-axis travel			mm	800/1,000				
工作台/Table								
工作台面积/Table size(X direction × Y direction)			mm	2,800×2,000	3,300×2,000	4,300×2,000	5,300×2,000	6,300×2,000
T型槽/T-slot(width × number × pitch)			mm	22×11×160				
工作台最大载重/Max. table load			kg	12,000	14,000	16,000	18,000	20,000
门宽/Distance between columns			mm	2,380				
主轴/Spindle								
主轴中心至立柱距离/Distance from spindle center to column			mm	450				
主轴鼻端至 工作台距离/ Distance from spindle nose to table	齿轮式50#/ 2-step gear 50#	Z轴/Z-axis=800	mm	200-1,000				
		Z轴/Z-axis=1000	mm	200-1,200				
	直结式40#/ Direct-driven 40#	Z轴/Z-axis=800	mm	215-1015				
		Z轴/Z-axis=1000	mm	215-1215				
主轴转速/Spindle speed(2-step gear)			rpm	6,000				
主轴马力/Spindle power (cont./30 min.)			kw	22/26				
主轴输出扭力/Spindle torque (cont./30 min.)			Nm	691/817				
主轴锥孔/Spindle taper			-	ISO 50				
进给/Feed								
切削进给速率/Cutting feed rate			m/min	1-15				
快速位移速率(X/Y/Z)/Rapid traverse(X/Y/Z)			m/min	20/20/1515/20/15				
自动换刀(选配)/ATC(optional)								
刀库容量 /Tool magazine capacity			pcs	24/32/40				
刀柄型式/Tool shank			-	BT50				
最大刀具长度/Max.tool length			mm	400				
最大刀具直径/Max.tool dia.			mm	125/250				
最大刀具重量/Max.tool weight			kg	18				
精度/Accuracy								
定位精度/Position accuracy(VDI-3441)			mm	P0.02				
重现精度/Repeatability(VDI-3441)			mm	Ps0.015				
其他/Other								
电力需求/Power requirement			KVA	50				
气压压力需求/Pneumatic requirement			kg/cm²	6				
机器总重/Machine gross weight			kg	31,800	35,300	41,300	46,300	53,300

* Specifications are subject to change without notice.

HSB

高速龙门加工中心机



HSB系列，高速型龙门加工中心机，采用了当下最先进的驱动系统，由其制造的航空件可以媲美进口产品，精密的机械工艺搭配多种主轴创造出高速加工。

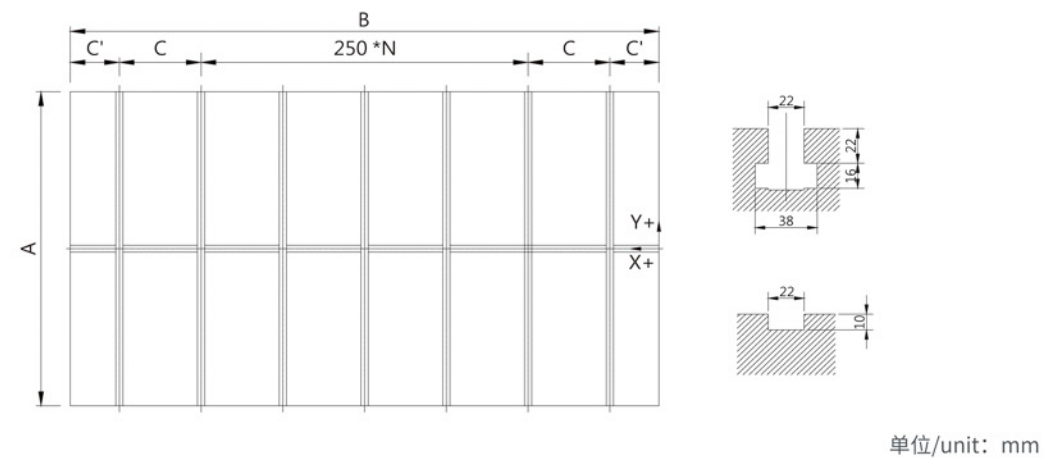
- 超高主轴转速
- 超快冲屑，高排屑率
- 机头采用对称热亲和设计
- 专为铝合金材质开发设计

HSB series, high-speed double column machining center, adopts the most advanced drive system. The aviation parts by it can compare favourably with imported products, and the precision mechanical technology combined with various spindles create high-speed machining.

- Super high spindle speed
- Super fast chip cleaning and high chip removal rate
- Machine head adopts a symmetrical and heat affinity design
- Specially developed and designed for aluminum alloy materials

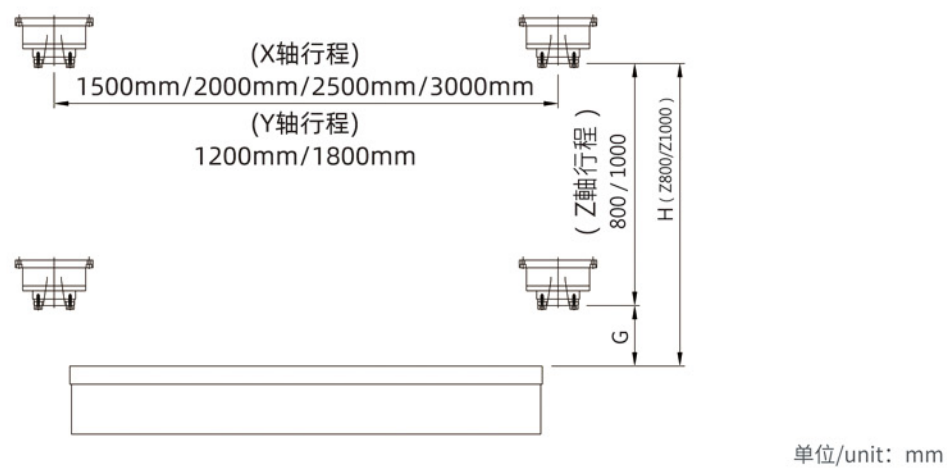


工作台示意图 / Worktable diagram



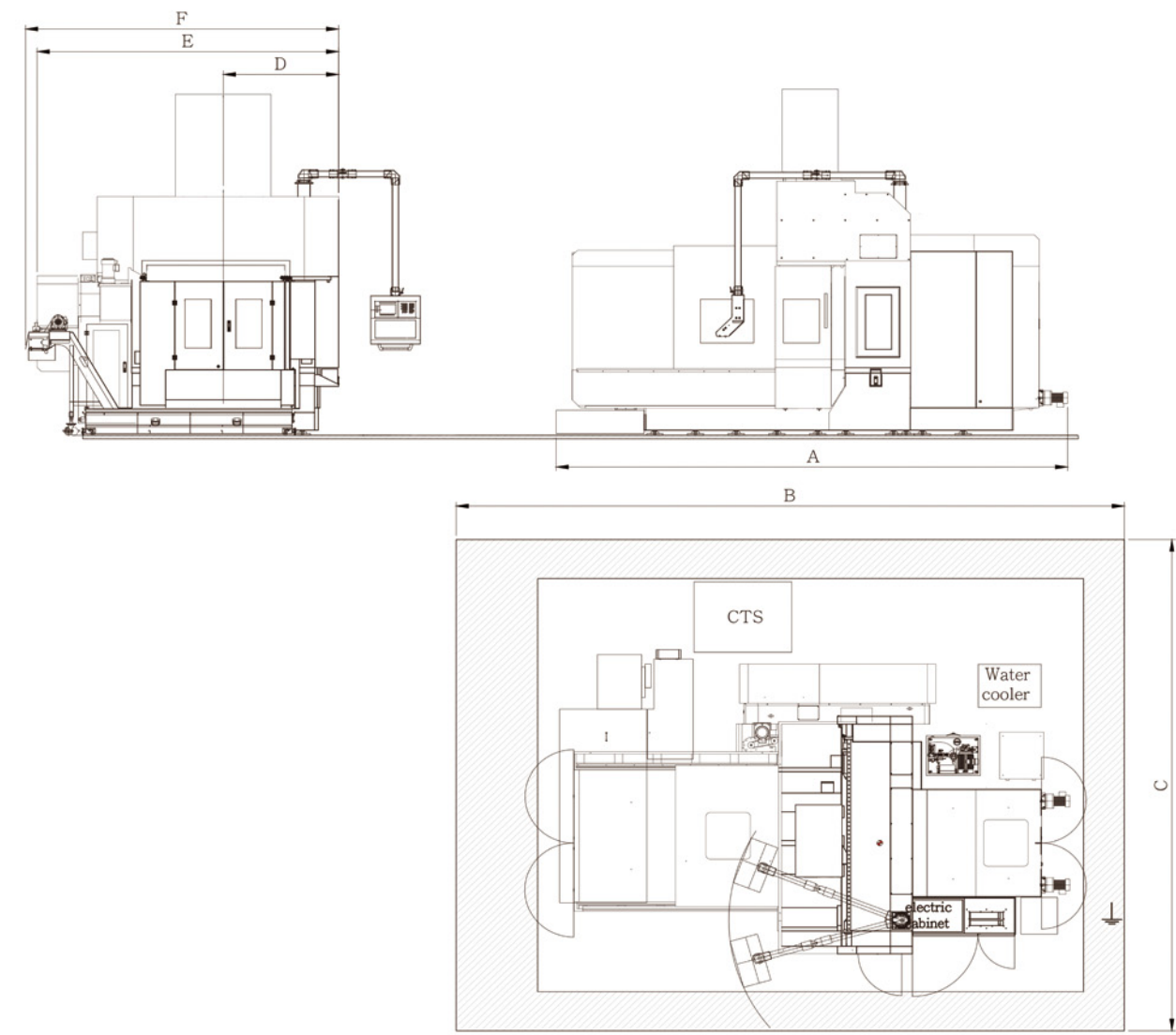
机型/Model	Type	A	B	C	N
HSB-47	A	1,800	1,000	250	6PCS
	B	2,300	1,000		8PCS
	C	2,800	1,000		10PCS
HSB-71	A	1,800	1,500		6PCS
	B	2,300	1,500		8PCS
	C	2,800	1,500		10PCS
	D	3,300	1,500		12PCS

主轴加工行程示意图 / Diagram of spindle machining travel



主轴型式/Spindle		Z轴行程/Z-axis travel 800		Z轴行程/Z-axis travel 1000	
		H	G	H	G
直结式/Direct-driven	15,000rpm/40#	1010	210	1210	210
内藏式/Built-in type	20,000/24,000rpm/HSK-A63	1010	210	1210	210
	28,000rpm/HSK-A63	1070	270	1270	270

机器外形图 / Machine layout drawing



机型/Model	Type	A	B	C	D	E		F	G	
						#40	#50		Z轴行程800/ Z-axis travel 800	Z轴行程1,000/ Z-axis travel 1,000
HSB-47	A	5,280	7,400	6,280	1,450	3,450	3,700	3,800	4,410	4,810
	B	6,280	8,200							
	C	7,440	9,600							
HSB-71	A	5,400	8,000	7,180	1,800	4,150	4,400	4,600	4,500	4,900
	B	6,400	9,000							
	C	7,400	10,000							
	D	8,400	11,000							

机械规格表 / Specification

机型/Model			单位 Unit	HSB-47		
				A	B	C
行程/Travel						
X轴行程/X-axis travel			mm	1,500	2,000	2,500
Y轴行程/Y-axis travel			mm	1,200		
Z轴行程/Z-axis travel			mm	800/1,000(optional)		
工作台/Table						
工作台面积/Table size(X direction × Y direction)			mm	1,800×1,000	2,300×1,000	2,800×1,000
T型槽/T-slot(width × number × pitch)			mm	22×7×250	22×9×250	22×11×250
工作台最大载重/Max. table load			kg	8,000	10,000	12,000
门宽/Distance between columns			mm	1,230		
主轴/Spindle						
主轴中心至立柱距离/Distance from spindle center to column			mm	450		
主轴鼻端至工作台距离/ Distance from spindle nose to table	直结式40#/ Direct-driven 40#	Z轴/Z axis=800	mm	210-1,010		
		Z轴/Z axis=1000	mm	210-1,210		
主轴转速/Spindle speed(2-step gear)			rpm	10,000/12,000/15,000~up		
主轴马力/Spindle power (cont./30 min.)			kw	7.5/11; 15/18.5 ~up		
主轴输出扭力/Spindle torque (cont./30 min.)			Nm	29/35 102/126		
主轴锥孔/Spindle taper			-	ISO 40		
进给/Feed						
切削进给速率/Cutting feed rate			m/min	1-24		
快速位移速率(X/Y/Z)/Rapid traverse(X/Y/Z)			m/min	24/30(optional)		
自动换刀(选配)/ATC(optional)						
刀库容量/Tool magazine capacity			pcs	20/24/32/40		
最大刀具长度/Max.tool length			mm	300		
最大刀具重量/Max.tool weight			mm	8		
刀柄型式/Tool shank			kg	BBT40/HSK-A63		
精度/Accuracy						
定位精度/Position accuracy(VDI-3441)			mm	P0.007		
重现精度/Repeatability(VDI-3441)			mm	Ps0.003		
其他/Other						
电力需求/Power requirement			KVA	55		
气压压力需求/Pneumatic requirement			kg/cm²	6		
机器总重/Machine gross weight			kg	18,400	20,400	23,400

* Specifications are subject to change without notice.

机型/Model			单位 Unit	HSB-71			
				A	B	C	D
行程/Travel							
X轴行程/X-axis travel			mm	1,500	2,000	2,500	3,000
Y轴行程/Y-axis travel			mm	1,800			
Z轴行程/Z-axis travel			mm	800/1,000(optional)			
工作台/Table							
工作台面积/Table size(X direction × Y direction)			mm	1,800×1500	2,300×1,500	2800×1,500	3,300×1,500
T型槽/T-slot(width × number × pitch)			mm	22×7×250	22×9×250	22×11×250	22×13×250
工作台最大载重/Max. table load			kg	8,000	10,000	12,000	14,000
门宽/Distance between columns			mm	1,820			
主轴/Spindle							
主轴中心至立柱距离/Distance from spindle center to column			mm	450			
主轴鼻端至工作台距离/ Distance from spindle nose to table	直结式40#/ Direct-driven 40#	Z轴/Z axis=800	mm	210-1,010			
		Z轴/Z axis=1000	mm	210-1,210			
主轴转速/Spindle speed(2-step gear)			rpm	10,000/12,000/15,000~up			
主轴马力/Spindle power (cont./30 min.)			kw	7.5/11; 15/18.5 ~up			
主轴输出扭力/Spindle torque (cont./30 min.)			Nm	29/35 102/126			
主轴锥孔/Spindle taper			-	ISO 40			
进给/Feed							
切削进给速率/Cutting feed rate			m/min	1-24			
快速位移速率(X/Y/Z)/Rapid traverse(X/Y/Z)			m/min	24/30(optional)			
自动换刀(选配)/ATC(optional)							
刀库容量/Tool magazine capacity			pcs	20/24/32/40			
最大刀具长度/Max.tool length			mm	300			
最大刀具重量/Max.tool weight			mm	8			
刀柄型式/Tool shank			kg	BBT40/HSK-A63			
精度/Accuracy							
定位精度/Position accuracy(VDI-3441)			mm	P0.007			
重现精度/Repeatability(VDI-3441)			mm	Ps0.003			
其他/Other							
电力需求/Power requirement			KVA	55			
气压压力需求/Pneumatic requirement			kg/cm²	6			
机器总重/Machine gross weight			kg	20,400	22,400	26,400	30,800

* Specifications are subject to change without notice.