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**China-Germany
Investment**

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01 Company Brief



Pursue excellent solution always

SKY MASTER is a China-Germany investment company specialized in designing and manufacturing high quality CNC machine tools under the supervision of Germany partner KRAFT. Our first-rate environment and well development foreground attracts a lot of experts and senior engineers to join in our technical team, both Taiwan research office and Germany R&D team supply the technical supporting, western engineering combined with Asian manufacturing leads us into an advanced synergy effect. We adopt modern management systems to run each process of designing, machining ,assembling and quality checking for an efficient performance .The company get the ISO9001 quality certificate and all machine get the CE certificate from TUV SUD company.

Our professional service team in all over the world keeps close contact with clients and supply technical support at any time. Take "Upright integrity, Excellent operation and High quality "as our management concept to produce each machine with our full heart, we are looking forward in achieving progress with you in the field of CNC machine tool.



01.1 Our Partner-KRAFT

GK Werkzeugmaschinen GmbH in Stockstadt am Rhein - Everything you need in one place, Everyone finds what they are looking for at KRAFT

In 1990 Gerhard Kraft founded GK Werkzeugmaschinen GmbH in Stockstadt am Rhein. Company founder Gerhard Kraft brought 25 years of knowledge and experience to the company. Since then, the company has grown into a flourishing enterprise with 10 professional designer who are focusing on CNC machine tool in different area, with 10 additional sales representatives in Germany, Austria and Switzerland for selling and serving KRAFT machine.

KRAFT has the factory with 3000sqm which is near to Rhein river ,it is very close to the Frankfurt airport.



02 Products



High Speed Series

Use our know-how to work out the solutions for your most difficult issues



Temperature & humidity constant workshop

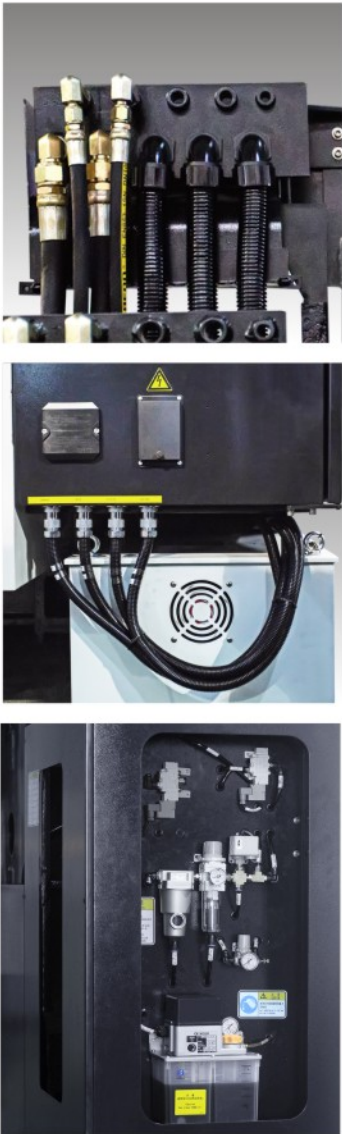
From 2011, Sky Master stepped into the new high-speed series. Based on advanced design concepts and outstanding technological support, Sky Master high-speed machines fill up various gaps in the field of domestic high-speed machines, and can reach up to 1.2 G acceleration and 0.005 mm repeated positioning accuracy.

VF

High Speed Series

- VF high speed vertical machine center is the new design for high precision mould cutting and nonferrous metal workpiece which need high speed machining.
- 15000RPM direct driven spindle with chiller and HSK A63 tool shank(BBT40 is option)which make the machine has excellent rotation precision ,low vibration and high speed response.
- All three axis are driven by large motors to achieve synergy ability.
- The surrounding coolant and workpiece side flushing can put down the temperature of tool, workpiece and machine.
- Standard controller is FANUC absolute type(package 1) including high quality machining package(AICC2,smooth tolerance control, jerk control, machining quality level adjustment function)
- Equipped with water-oil separation machine, separates the lubricating oil from the cutting fluid. Increase the surface quality of mould machining.

VF108

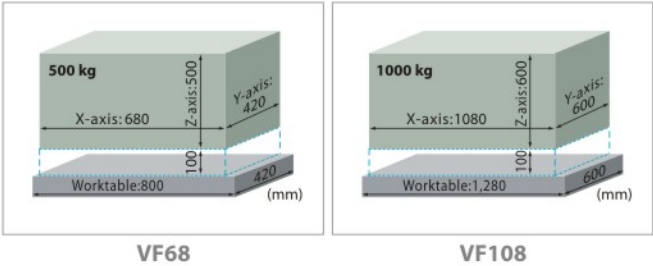


Technical
Parameter

Item		Unit	VF68	VF108
Standard controller			FANUC 0i MF	
Travel	X axis travel(work-table)	mm	680	1080
	Y axis travel(saddle)	mm	420	600
	Z axis travel(spindle head)	mm	500	600
	Distance from spindle nose to table	mm	100 ~ 600	100 ~ 700
	Distance from spindle center to column cover	mm	480	630
Work table	Table size(length × width)	mm	800 × 420	1280 × 600
	Max. table load	kg	500	1000
	T slot size(width × distance × quantity)	mm	14 × 80 × 5	18 × 100 × 5
Spindle	Spindle taper		HSK-A63	
	Max. spindle speed	rpm	15000(Direct driven)	
	Spindle motor power (continual working/Max.)	kW	9/15	
	Spindle torque	N.m	57.3/120	
X/Y/Z	Rapid traverse X/Y	mm/min	40000	36000
	Rapid traverse Z	mm/min	32000	24000
	Cutting feed rate on X/Y/Z	mm/min	1 ~ 10000	
ATC (Option)	ATC type		Arm type	
	Tool capacity	pcs	24	
	Max. tool diameter	mm	Ø80/Ø130	
	Max. tool length	mm	350	
Accuracy	Max. tool weight	kg	8	
	VDI/DGQ3441	Full travel positioning accuracy	mm	P0.010
		Repeatability accuracy	mm	Ps0.008
	Air pressure	MPa	0.6 ~ 0.8	
Supply Voltage & Frequency			3/PE, AC380V, 50Hz	
Power requirement		kVA	30	
Machine size (L/W/H)		mm	3300 × 2700 × 2700	3730 × 3510 × 2970
Machine weight		kg	4500	7250

We reserve the right to change technical parameter for improvement of our products without giving notice to customers.

Moveable Area:



VF High Speed Series

- VF double column high speed high accuracy series is designed for precise mold base and nonferrous metal machining. Standard machine equips with high speed spindle.
- One piece cast iron machine bed and one piece cast iron bridge, the whole structure is analyzed by FEM which optimize the rigidity and accuracy.
- The HEIDENHAIN TNC system comes as standard with 15 inch colored LCD screen, LAC(Load Adaptive Control), Handwheel Superimposing, touch probe cycles, extended programming function, program-verification graphics(Model VF1290 are not included)
- All three axis use European high quality linear guide way and Heidenhain absolute type linear encoder, providing precise accuracy and stable performance.
- Full enclosed splash guard with European operation box in safe and elegant outlook ,every design is for convenience operation.
- The coolant tank is equipped with oil/water separator which can protect the working environment and prolong the life time of coolant.

VF1615A



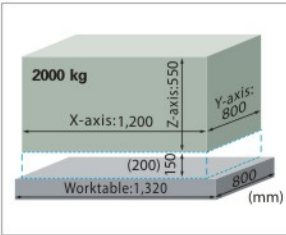
Technical Parameter

Item		Unit	VF1290	VF1290A	VF1290B	VF1615	VF1615A	VF1615B
Standard controller			FANUC 0i MF	HEIDENHAIN TNC620				
Travel	X axis travel(work-table)	mm	1200			1600		
	Y axis travel(saddle)	mm	800			1300		
	Z axis travel(spindle head)	mm	550			700		
	Distance from spindle nose to table	mm	150 ~ 700		200 ~ 750	200 ~ 900	225 ~ 925	250 ~ 950
	Distance between columns/ work piece access height	mm	920/715			1500/715		
Work table	Table size(length x width)	mm	1320 x 800			1800 x 1300		
	Max. table load	kg	2000			4000		
	T slot size(width x distance x quantity)	mm	14 x 120 x 7			22 x 160 x 8		
Spindle	Spindle taper		HSK-A63		HSK-E50	HSK-A63		HSK-E50
	Max. spindle speed	rpm	15000(Direct driven)	24000(Build-in)	36000(Build-in)	15000(Direct driven)	24000(Build-in)	36000(Build-in)
	Spindle motor power (continual working/Max.)	kW	9/15	30/39	20/26	10/17	25/33	20/26
	Spindle torque	N.m	57.3/120	29.1/37.8	10.4/13.5	63.7/108.6	72.6/95.8	10.4/13.5
X/Y/Z	Rapid traverse (X/Y/Z)	mm/min	30000	40000		30000		
	Cutting feed rate (X/Y/Z)	mm/min	1 ~ 10000	1 ~ 20000				
ATC (Option)	Tool capacity	pcs	20		24	20		24
	Max. tool diameter	mm	Ø100/Ø130		Ø80/Ø120	Ø100/Ø130		Ø80/Ø120
	Max. tool length	mm	300		220	300		200
	Max. tool weight	kg	8		4	8		4
Accuracy	VDI/DGQ3441	Full travel positioning accuracy	P0.014					
		Repeatability accuracy	Ps0.008					
Air pressure		MPa	0.6 ~ 0.8					
Supply voltage & frequency			3 /PE, AC380V, 50Hz					
Power requirement		kVA	30	80				
Machine size (L/W/H)		mm	4476 x 4790 x 3215			5657 x 5403 x 3954		
Machine weight		kg	12000			22000		

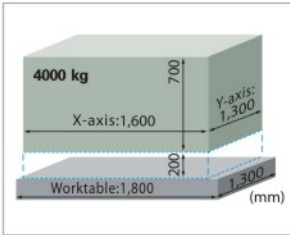
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Moveable Area:



VF1290/1290A/1290B



VF1615/1615A/1615B



5 Axis Series

- VU vertical 5 axis machining center is widely used in 5 axis type products components and complicated mold cutting.
- Designed with outstanding structure and high rigidity ,the world famous brand of linear guide way are used on all three axis to achieve high accuracy machining ability.
- The major parts are manufactured from high grade cast iron and released the stress by heat treatment , ensuring the best structural stability and positioning accuracy.
- Double support design on the A axis, compact structure, great rigidity, optimized loading capacity and precise positioning accuracy.
- Cradle type structure, higher machining efficiency, tool length has no effect on the machining accuracy; make sure the 3D space shape accurate.



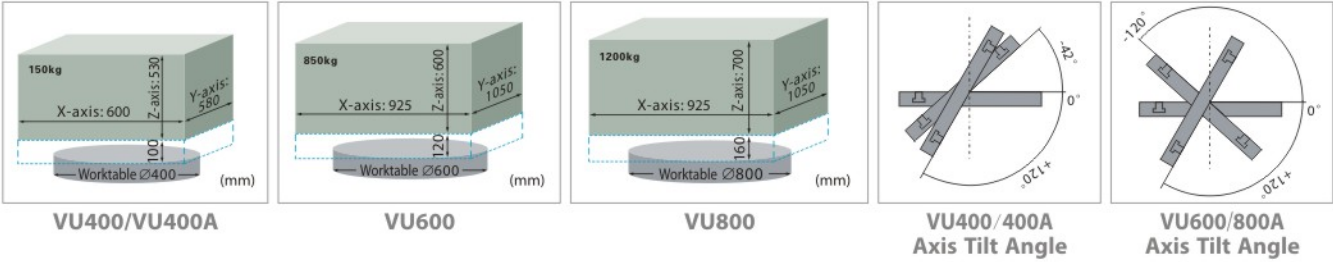
Technical Parameter



Item		Unit	VU400	VU400A	VU600	VU800
Standard controller			FANUC Oi MF (any 4 axis in synchronization)	HEIDENHAIN TNC620	HEIDENHAIN TNC640	
Travel	X axis travel(work-table)	mm	600		925	
	Y axis travel(saddle)	mm	580		1050	
	Z axis travel(spindle head)	mm	530		600	700
	Distance from spindle nose to table	mm	100 ~ 630		120 ~ 720	160 ~ 860
Work table	Table diameter	mm	Ø400		Ø600	Ø800
	T slot size (quantity x width)	mm	8X12		7X14	
	Workpiece max. diameter	mm	Ø600		Ø960	Ø1000
	Max. table load	kg	150		850	1200
	Rotation angle	A axis	+120 ° ~ -42 °		+120 ° ~ -120 °	
		C axis	360 °			
	Max. speed	A axis	rpm	13.3		50
C axis		rpm	22.2		100	
Spindle	Spindle taper		BT40		HSK-A63	
	Max. spindle speed	rpm	10000 (Direct driven)		15000 (Direct driven)	
	Spindle motor power (continual working/Max.)	kW	11/15		5.5/9.5	10/17
	Spindle torque	N.m	52.5/95.5		35/60.7	63.7/108.6
X/Y/Z	Rapid traverse X/Y	mm/min	36000		40000	
	Rapid traverse Z	mm/min	24000		40000	
	Cutting feed rate on X/Y/Z	mm/min	1 ~ 10000		1 ~ 20000	
ATC	ATC type		Arm type			
	Tool capacity	pcs	24		32	
	Max. tool diameter	mm	Ø80/Ø130		Ø75/Ø130	
	Max. tool length	mm	350		300	
	Max. tool weight	kg	8			
Accuracy	VDI/DGQ3441	Full travel positioning accuracy	mm	P0.012		
		Repeatability accuracy	mm	Ps0.008		
Air pressure		MPa	0.6 ~ 0.8			
Supply voltage & frequency			3/PE, AC380V, 50Hz			
Power requirement		kVA	30		80	
Machine size (L/W/H)		mm	3730 × 3510 × 3170		5090X3250X3510	
Machine weight		kg	7650		22000	

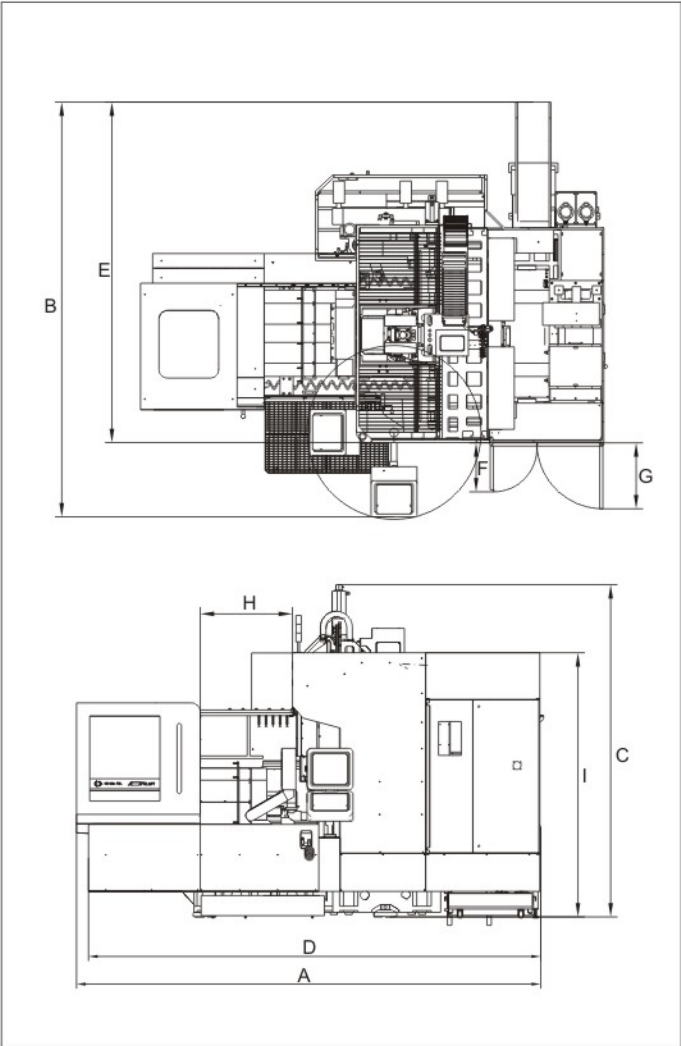
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Moveable Area:



Standard&Option	VU400	VU400A	VU600	VU800
FANUC 0i MF absolute type	● (any 4 axis in synchronization)	x	x	x
HEIDENHAIN TNC620	○	●	● TNC640	● TNC640
Rigid tapping	●	●	●	●
Full-enclosed splash guard	●	●	●	●
Direct driven spindle 10000rpm BT40	●	x	x	x
Direct driven spindle 15000rpm HSKA63	○	●	●	●
Direct driven spindle 15000rpm BBT40	○	○	○	○
Electric spindle 15000rpm HSKA63 INNA	○	x	x	x
Electric spindle 24000rpm HSKA63 IBAG	x	○	○	○
Electric spindle 36000rpm HSKE50 IBAG	x	x	○	○
Spindle air sealing	●	●	●	●
Air blowing device	●	●	●	●
Working area light	●	●	●	●
3 colors warning light	●	●	●	●
A/C for electric cabinet	●	●	●	●
Portable MPG	●	●	●	●
Tool coolant system	●	●	●	●
Lubrication system/pneumatic system	●	●	●	●
Adjustable level bolts and foundation blocks	●	●	●	●
Chain chip conveyor	●	●	●	●
Coil chip conveyor	x	x	●	●
Tool box	●	●	●	●
Air gun/water gun with flushing function	●	●	●	●
Oil and water separator machine	●	●	●	●
Automatically power off	●	●	●	●
Spindle chiller	●	●	●	●
Spinle cooling by external pipe	●	●	●	●
Operation manual	●	●	●	●
Safety door interlock	●	●	●	●
Transformer	●	x	x	x
Arm type ATC BT40 24T (pneumatic)	●	x	x	x
Arm type ATC HSKA63 24T (pneumatic)	x	●	x	x
Chain type ATC HSKA63 32T (pneumatic)	x	x	●	●
Chain type ATC HSKA63 40T (pneumatic)	x	x	○	○
Roof spraying system	○	○	○	○
Large flow chip flushing function	○	○	○	○
Machining observation window	○	○	○	○
Drawer type water tank	○	○	x	x
Coolant through spindle center	○	○	○	○
3 axes hollow screw cooling	x	x	●	●
Grease lubrication device	○	○	●	●
Voltage stabilizer	○	○	○	○
Heidenhain absolute linear scale	○	●	●	●
Measuring system (tool, workpiece)	○	○	○	○
Air dryer	○	○	○	○
Oil mist recycle machine (LOSMA)	○	○	○	○
Full enclosed iron box packaging	○	○	○	○
Warranty prolong 1 year	○	○	○	○

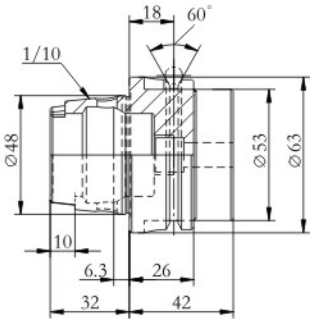
● Standard○ Optional× Not available



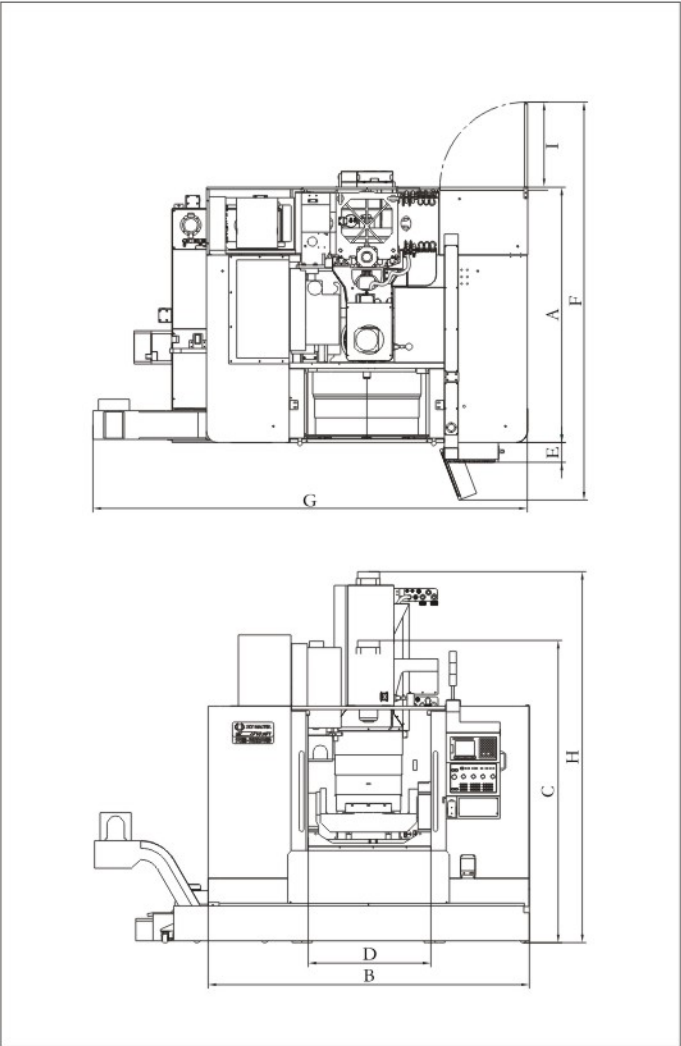
Dimensions

	A	B	C	D	E	F	G	H	I
VU600	5300	4730	4140	5133	3880	540	730	1050	2900
VU800	5300	4730	4250	5133	3880	540	730	1050	3010

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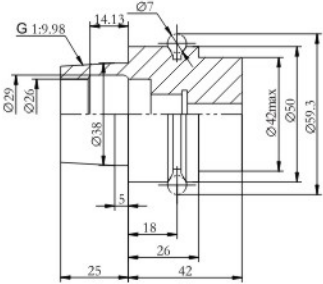
■ HSK –A63 Tool Shank



Dimensions

	A	B	C	D	E	F	G	H	I
VU400	2223	2794	2570	1100	180	3138	3730	3170	765
VU400A	2223	2794	2570	1100	180	3138	3730	3170	765

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■ HSK E50 Tool Shank

Vertical Series

Smart, compact ,more utility



Sky Master constantly improves and renovates the structures and designs of the Vertical Series, updating the standard configurations to keep up with market standards while maintaining the highest quality.



Linear Guide Way Series

- The VL-series vertical CNC machines is designed for effective and productive machining. Widely used for high precision plastic moulds, forging dies, auto, aerospace industry, electric and home appliance.
- The structure of this series is carefully developed and with high rigidity. Linear guide ways from REXROTH or THK guarantee excellent machining ability. The work table is strong supported to get the optimized dynamic precision and long life lasting.
- The major machine parts are made of top-grade cast iron to achieve high rigidity and stable quality.
- The high quality spindle of the machine provides outstanding rotation precision at every speed and equip with coolant by external pipe.
- Pre-stressed precision double nut ball-screws C3 grade in all axis, directly driven by the servo motors in order to eliminate backlash and improve transmission efficiency as well as accurate position control. Inverted "Y" style column with large contact surface result in excellent strength.
- Z axis is driven by big power motor which can eliminate the defect of large current and mechanical balance run-out if with counter weight. It improves the response speed too.

VL700A

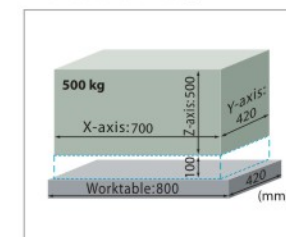


Technical Parameter

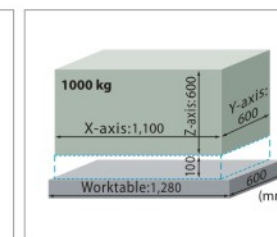
Item		Unit	VL700A	VL1100A	VL1100D	VL1300	VL1300D	VL1500	VL1500D
Standard controller			FANUC 0i MF						
Travel	X axis travel(work-table)	mm	700	1100		1300		1500	
	Y axis travel(saddle)	mm	420	600		760			
	Z axis travel(spindle head)	mm	500	600		700			
	Distance from spindle nose to table	mm	100 ~ 600	100 ~ 700	60 ~ 660	135 ~ 835			
	Distance from spindle center to column cover	mm	480	630		780			
Work table	Table size(length × width)	mm	800 × 420	1280 × 600	1280 × 600	1600 × 750			
	Max. table load	kg	500	1000		1200			
	T slot size(width × distance × quantity)	mm	14 × 80 × 5	18 × 100 × 5		18 × 125 × 5			
Spindle	Spindle taper		BT40		BT50	BT40	BT50	BT40	BT50
	Max. spindle speed	rpm	10000(Belt)	10000(Direct driven)	6000(Direct driven)	10000	6000	10000	6000
	Spindle motor power (continual working/Max.)	kW	7.5/11	11/15		15/18.5			
	Spindle torque	N.m	35.8/70	52.5/95.5		95/118	382/460	95/118	382/460
X/Y/Z	Rapid traverse X/Y	mm/min	36000/36000			24000/24000			
	Rapid traverse Z	mm/min	30000			24000			
	Cutting feed rate on X/Y/Z	mm/min	1 ~ 10000						
ATC	ATC type		Arm type						
	Tool capacity	pcs	24						
	Max. tool diameter	mm	Ø80/Ø130		Ø110/Ø220	Ø81/Ø162	Ø110/Ø200	Ø81/Ø162	Ø110/Ø200
	Max. tool length	mm	350						
	Max. tool weight	kg	8		15	8	15	8	15
Accuracy	VDI/DGQ3441 Full travel positioning accuracy	mm	P0.010			P0.012			
	Repeatability accuracy	mm	Ps0.008			Ps0.010			
Air pressure		MPa	0.6 ~ 0.8						
Supply voltage & frequency			3/PE, AC380V, 50Hz						
Power requirement		kVA	20	30		25			
Machine size (L/W/H)		mm	3300 × 2700 × 2700	3730 × 3510 × 2850		4015 × 3605 × 3550			
Machine weight		kg	4500	7250		12000		12300	

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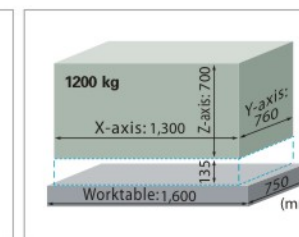
Moveable Area:



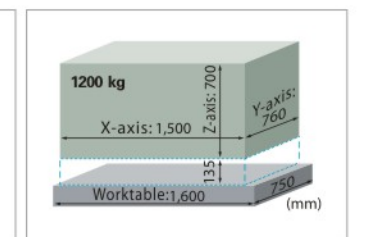
VL700A



VL1100A/1100D



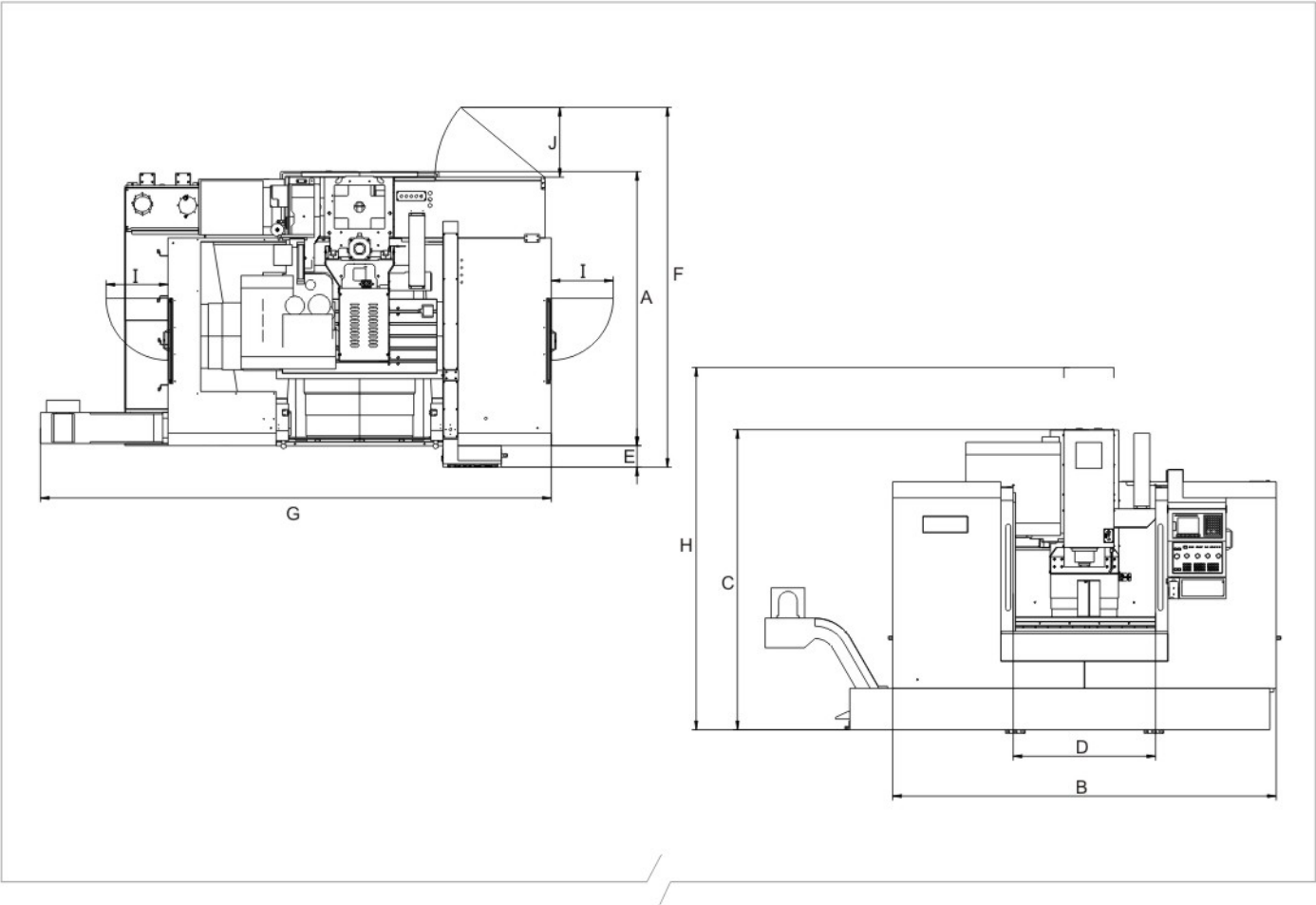
VL1300/1300D



VL1500/1500D

Standard&Option	VL700A	VL1100A	VL1100D	VL1300	VL1300D	VL1500	VL1500D
FANUC 0i MF absolute type	●	●	●	●	●	●	●
MITSUBISHI M80	○	○	○	x	x	x	x
SIEMENS 828D	○	○	○	x	x	x	x
Fine quality machining package	○	○	○	○	○	○	○
Rigid tapping	●	●	●	●	●	●	●
Full-enclosed splash guard	●	●	●	●	●	●	●
Spindle 6000rpm	x	x	●	x	●	x	●
Spindle 10000rpm	●	●	○	●	x	●	x
Spindle 8000rpm	○	x	○	x	x	x	x
Spindle air sealing	●	●	●	●	●	●	●
Spindle chiller	●	●	●	●	●	●	●
Air blowing device	●	●	●	●	●	●	●
Working area light	●	●	●	●	●	●	●
3 colors warning light	●	●	●	●	●	●	●
Heat exchanger in electrical cabinet	●	●	●	●	●	●	●
Portable MPG	●	●	●	●	●	●	●
Tool coolant system	●	●	●	●	●	●	●
Lubrication system/pneumatic system	●	●	●	●	●	●	●
Adjustable level bolts and foundation blocks	●	●	●	●	●	●	●
Coil chip conveyor	x	x	x	●	●	●	●
Chain chip conveyor	●	●	●	○	○	○	○
Tool box	●	●	●	●	●	●	●
Air gun/water gun with flushing function	●	●	●	●	●	●	●
Automatically power off	●	●	●	●	●	●	●
Transformer	●	●	●	●	●	●	●
Operation manual	●	●	●	●	●	●	●
Safety door interlock	●	●	●	●	●	●	●
Arm type ATC 24T (pneumatic)	●	●	●	●	●	●	●
Arm type ATC 30T (pneumatic)	x	○	x	○	x	○	x
Chain type ATC 32T (pneumatic)	x	○	x	x	x	x	x
Spindle cooling by external pipe	●	●	x	x	○	x	○
A/C for electric cabinet	○	○	○	○	○	○	○
Oil and water separator machine	○	○	○	○	○	○	○
Large flow chip flushing function	○	○	○	○	○	○	○
Coolant through spindle center	○	○	○	○	○	○	○
Column raise 200	x	○	○	○	○	○	○
Column raise 300	x	○	○	x	x	x	x
Automatic door	○	○	○	○	○	○	○
BF gear box	x	x	x	x	●	x	●
Voltage stabilizer	○	○	○	○	○	○	○
4th axis/5th axis	○	○	○	○	○	○	○
Heidenhain absolute linear scale	○	○	○	○	○	○	○
Measuring system (tool, workpiece)	○	○	○	○	○	○	○
Drawer type water tank	○	○	○	x	x	x	x
Full enclosed iron box packaging	○	○	○	○	○	○	○
Warranty prolong 1 year	○	○	○	○	○	○	○

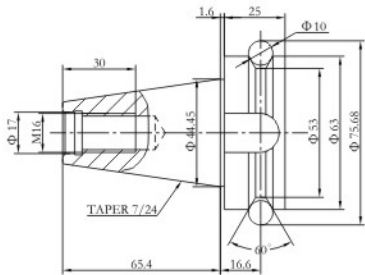
● Standard
 ○ Optional
 x Not available



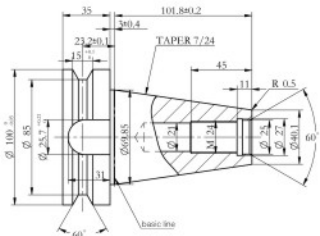
Dimensions

	A	B	C	D	E	F	G	H	I	J
VL700A	1915	2180	2090	650	175	2955	3155	2590	0	865
VL1100A/1100D	2223	2794	2237	1100	180	3138	3730	2850	0	765
VL1300/1300D	2402	3600	2882	1635	300	3529	4015	3407	0	800
VL1500/1500D	2402	3600	2882	1635	300	3529	4015	3407	0	800

We reserve the right to change technical parameter for improvement of our products without giving notice to customers.



BT40 Tool Shank



BT50 Tool Shank

Double Column Series

Convenience in processing large products



Automatic Head Exchange

The automatic exchange milling head storage has the separated place for head cover and attachment milling head, the movement is designed with linear guide way or rotation cylinder, it can exchange the head rapidly. The separated door is only open during head exchanging, other time it is closed to prevent the coolant go inside as well as prolong the lifetime.



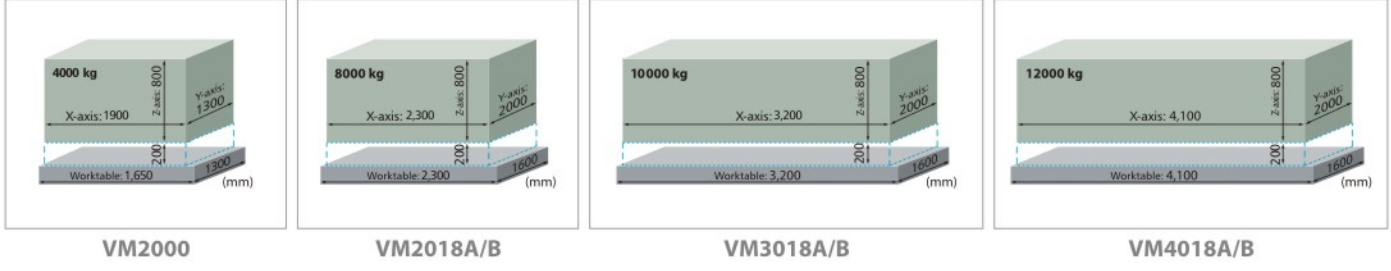
The Double Column Series of Sky Master include such features as high rigidity and modularization. The spindle and BF/ZF gearbox are designed with unique direct driven to eliminate intermediate transmission, ensuring stability during heavy cutting.

Technical
Parameter

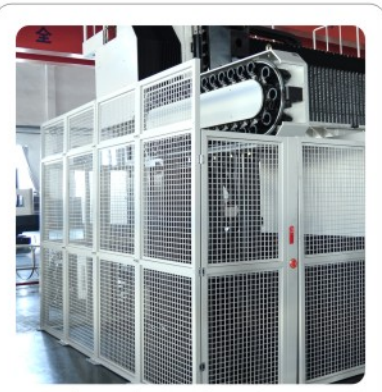
Item	Unit	VM2000	VM2018A	VM2018B	VM3018A	VM3018B	VM4018A	VM4018B
Standard controller		FANUC 0i MF						
Travel	X axis travel	mm	1900	2300	3200		4100	
	Y axis travel	mm	1300		2000			
	Z axis travel	mm			800			
	Distance from spindle nose to table	mm			200 ~ 1000			
	Distance between columns/ work piece access height	mm			1840/1000			
Work table	Table size(length x width)	mm	1650 x 1300	2300 x 1600	3200 x 1600		4100 x 1600	
	Max. table load	kg	4000	8000	10000		12000	
	T slot size(width x distance x quantity)	mm	22 x 180 x 7		22 x 180 x 8			
Spindle	Spindle taper		BT50	BBT50	BT50	BBT50	BT50	BBT50
	Max. spindle speed	rpm	6000(Direct driven)	10000(Direct driven)	6000(Direct driven)	10000(Direct driven)	6000(Direct driven)	10000(Direct driven)
	Spindle motor power (continual working/ Max.)	kW	15/18.5		22 / 26			
	Spindle torque	N.m	427/528	560/662	140/165	560/662	140/165	560/662
XYZ	Rapid traverse XYZ	mm/min		20000/20000/15000			15000/20000/15000	
	Cutting feed rate on XYZ	mm/min			1~10000			
ATC (Option)	ATC type		Chain type					
	Tool capacity	pcs	24		32			
	Max. tool diameter	mm	Ø110/Ø220		Ø110/Ø225			
	Max. tool length	mm			350			
Accuracy	Max. tool weight	kg	15		20			
	VDI/DGQ3441 Full travel positioning accuracy	mm	P0.015	P0.020	P0.025		P0.030	
	Repeatability accuracy	mm	Ps0.010	Ps0.015	Ps0.020		Ps0.025	
	Air pressure	MPa		0.6~0.8				
	Supply voltage & frequency			3/PE, AC380V, 50Hz				
	Power requirement	kVA	40		60			
	Machine size (L/W/H)	mm	4591 x 4674 x 4480	7027 x 5217 x 4520	8927 x 5217 x 4520		10327 x 5217 x 4520	
	Machine weight	kg	18000	22000	26000		30000	

如有修改技术参数恕不另行通知，天瑞保留最终解释权

Moveable Area:



VM2000



ATC is designed with safety enclosure guard and safety switch in order to protect the operator(For example, if the door is opened during running, the machine will stop automatically)

VM18

Double Column Series
Medium Size Component Machining Center



Use Germany IGUS cable and wire, Phoenix terminals, Schneider contactor, the whole machine's wire arrangement is according to European CE standard.

VM2018B

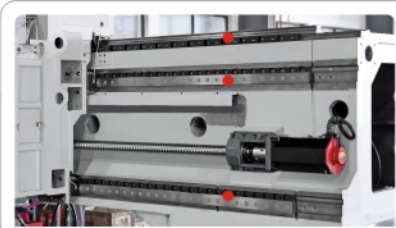
Full-enclosed splash guard with roof(option)



VM25/30

Double Column Series

Large size double column series



Y axis use a special ladder design with three linear guide ways, combine with world well known brand roller type linear guide way, increases machine's rigidity and position accuracy dramatically.



On the back, a ladder and other safety devices simplify maintenance of the machine. Seamless steel pipes provide clean, efficient and fast oil circulation.



Both X and Y axis equipped with high quality linear guide way, the machine bed use four linear guide ways to provide great support for the worktable, it also increases worktable's loading ability and lower the vibration while cutting.

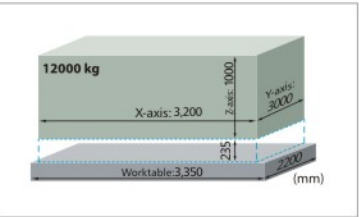
Technical
Parameter

Item	
Standard controller	FANUC Oi MF
X axis travel(work-table)	
Y axis travel(saddle)	
Z axis travel(spindle head)	
Distance from spindle nose to table	
Distance between columns/ work piece access height	
Table size(length x width)	
Max. table load	
T slot size(width x distance x quantity)	
Spindle taper	
Max. spindle speed	
Spindle motor power (continual working/ Max.)	
Spindle torque	
Rapid traverse X/Y/Z	
Cutting feed rate on X/Y/Z	
ATC type	
Tool capacity	
Max. tool diameter	
Max. tool length	
Max. tool weight	
Accuracy	Full travel positioning accuracy Repeatability accuracy
Air pressure	
Supply voltage & frequency	
Power requirement	
Machine size(L/W/H)	
Machine weight	

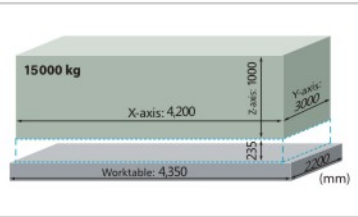
Unit	VM3225A	VM3225B	VM4225A	VM4225B	VM5225A	VM5225B	VM3230A	VM4230A	VM5230A
	FANUC Oi MF								
mm	3200		4200		5100		3200	4200	5100
mm	3000						3400		
mm	1000								
mm	235 ~ 1235								
mm	2550/1300						3050/1300		
mm	3350 × 2200		4350 × 2200		5350 × 2200		3350 × 2200	4350 × 2200	5350 × 2200
kg	15000		18000		21000		15000	18000	21000
mm	28 × 250 × 13		28 × 250 × 17		28 × 250 × 21		28 × 250 × 13	28 × 250 × 17	28 × 250 × 21
	BT50	BBT50	BT50	BBT50	BT50	BBT50	BT50		
rpm	6000(Direct driven)	10000(Direct driven)	6000(Direct driven)	10000(Direct driven)	6000(Direct driven)	10000(Direct driven)	6000(Direct driven)		
kW	22/26								
N.m	560/662	140/165	560/662	140/165	560/662	140/165	560/662		
mm/min	15000/18000/15000		12000/18000/15000				15000/18000/15000	12000/18000/15000	
mm/min	1 ~ 8000								
	Chain type								
pcs	32								
mm	Ø110/Ø225								
mm	350								
kg	20								
mm	P0.025		P0.030		P0.040		P0.025	P0.030	P0.040
mm	Ps0.020		Ps0.025		Ps0.030		P0.020	P0.025	P0.030
MPa	0.6 ~ 0.8								
	3/PE, AC380V, 50Hz								
kVA	60								
mm	10125 × 6840 × 4715		12035 × 6840 × 4715		14035 × 6840 × 4715		10125 × 6840 × 4715	12035 × 6840 × 4715	14035 × 6840 × 4715
kg	40000		45000		50000		42000	47000	52000

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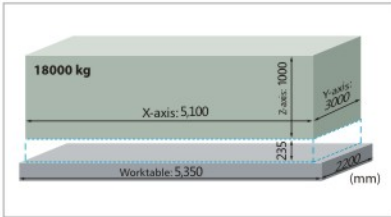
Moveable Area:



VM3225A/3225B



VM4225A/4225B



VM5225A/5225B



Double Column Series

Large Size Component Machining Center (Box way)

- The spindle was driven by a digital servo motor, max. speed 6000rpm. The motor transfer its power through deceleration gearbox and belt to the spindle. The maximum torque is 662N.m.
- Z axis use box way with adjustable wedges ,the die-cast guide way surface is treated with high frequency quenching and precise grinding, plastic wear-resisting plate stick on the slide guide surface and formed with scrapping in order to meet the requirement for high accuracy in high speed and no vibration in low speed.
- The Z axis equipped with nitrogen balance device for weight distribution. This device has a simple structure, also runs smoothly, make sure the best precision for Z axis.

VM3225

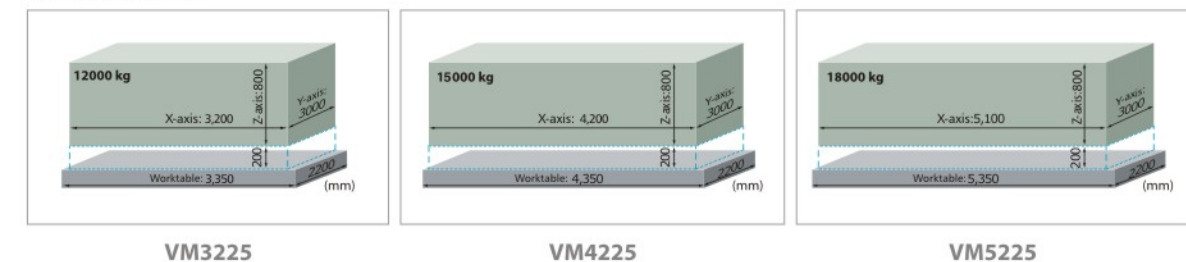


技术参数

Item		Unit	VM3225	VM4225	VM5225
Standard controller			FANUC 0i MF		
Travel	X axis travel(work-table)	mm	3200	4200	5100
	Y axis travel(saddle)	mm	3000		
	Z axis travel(spindle head)	mm	800		
	Distance from spindle nose to table	mm	200 ~ 1000		
	Distance between columns/work piece access height	mm	2550/1100		
Work table	Table size(length x width)	mm	3350 x 2200	4350 x 2200	5350 x 2200
	Max. table load	kg	15000	18000	21000
	T slot size(width x distance x quantity)	mm	28 x 250 x 13	28 x 250 x 17	28 x 250 x 21
Spindle	Spindle taper		BT50		
	Max. spindle speed	rpm	6000		
	Spindle motor power (continual working/ Max.)	kW	22/26		
	Spindle torque	N.m	560/662		
X/Y/Z	Rapid traverse X	mm/min	12000		
	Rapid traverse Y	mm/min	18000		
	Rapid traverse Z	mm/min	10000		
	Cutting feed rate on X/Y/Z	mm/min	1 ~ 8000		
ATC (Option)	ATC type		Chain type		
	Tool capacity	pcs	32		
	Max. tool diameter	mm	Ø110/Ø225		
	Max. tool length	mm	350		
	Max. tool weight	kg	20		
Accuracy	VDI/DGQ3441 Full travel positioning accuracy	mm	P0.025	P0.030	P0.040
	Repeatability accuracy	mm	Ps0.020	Ps0.025	Ps0.030
Air pressure		MPa	0.6 ~ 0.8		
Supply voltage & frequency			3/PE, AC380V, 50Hz		
Power requirement		kVA	60		
Machine size(L/W/H)		mm	10125 x 6840 x 4515	12035 x 6840 x 4515	14035 x 6840 x 4515
Machine weight		kg	40000	45000	50000

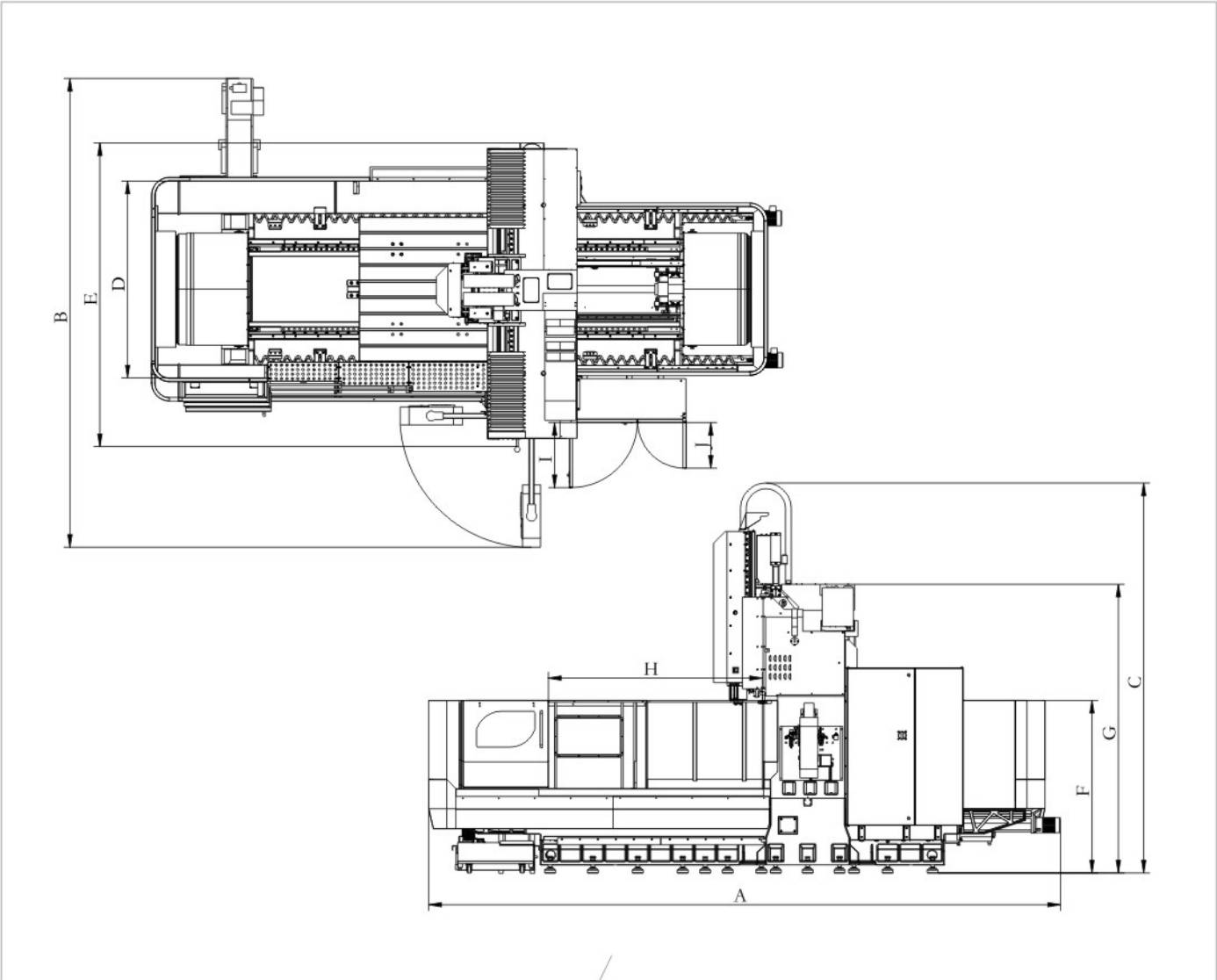
We reserve the right to change technical parameter for improvement of our products without giving notice to customers.

Moveable Area:



Standard&Option	VM2000	VM2018A	VM3018A	VM4018A	VM2018B	VM3018B	VM4018B	VM3225A	VM4225A	VM5225A	VM3230A	VM4230A	VM5230A	VM3225B	VM4225B	VM5225B
FANUC 0i MF absolute type	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HEIDENHAIN TNC620	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Fine quality machining package	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Rigid tapping	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Full-enclosed splash guard	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Spindle with gear box 6000rpm	●	●	x	●	x	●	x	●	●	x	●	●	x	●	●	●
Direct driven spindle 8000rpm	○	x	○	x	○	x	○	x	x	○	x	x	○	○	○	○
Direct driven spindle 10000rpm	○	x	●	x	●	x	●	x	x	●	x	x	●	○	○	○
Direct driven spindle 15000rpm	○	x	○	x	○	x	○	x	x	○	x	x	○	○	○	○
Spindle air sealing	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air blowing device	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Working area light	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
3 colors warning light	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Heat exchanger in electrical cabinet	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
A/C for electric cabinet	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Portable MPG	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tool coolant system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Lubrication system/pneumatic system	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Adjustable level bolts and foundation blocks	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Coil chip conveyor	●	●	●	●	●	●	●	x	x	x	x	x	x	x	x	x
Chain chip conveyor	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Tool box	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Air gun/water gun with flushing function	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Automatically power off	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Transformer	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Spindle chiller	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Operation manual	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Safety door interlock	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
Z axis travel 1000mm	○	○	○	○	○	○	○	x	●	●	x	●	●	●	●	●
Z axis travel 1300mm (four linear guide)	x	x	x	x	x	x	x	x	○	○	x	○	○	○	○	○
Z axis travel 1500mm (four linear guide)	x	x	x	x	x	x	x	x	○	○	x	○	○	○	○	○
Full enclosed guard with roof	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Whole column raise 200mm	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Split column raise 200mm	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Split column raise 300mm	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Arm type ATC 24T (pneumatic)	○	○	○	○	○	○	○	x	x	x	x	x	x	x	x	x
Chain type ATC 32T (pneumatic)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Chain type ATC 40T/60T (pneumatic)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
5 axis controller function	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Oil-feed tool shank port (15kg with water pump)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Oil and water separator machine	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Voltage stabilizer	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Coolant through spindle center	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
4th axis/5th axis	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Heidenhain absolute linear scale	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Measuring system (tool, workpiece)	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Attachment milling head	x	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Rotation storage for attachment head	x	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Full enclosed iron box packaging	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
Warranty prolong 1 year	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

● Standard ○ Optional x Not available



Dimensions

	A	B	C	D	E	F	G	H	I	J
VM2000	4590	4674	4480	2740	3438	2300	3213	1350	740	508
VM2018A/2018B	7027	5217	4520	2190	3438	1920	3420	2400	508	740
VM3018A/3018B	8927	5217	4520	2190	3438	1920	3420	3000	508	740
VM4018A/4018B	10327	5217	4520	2190	3438	1920	3420	3000	508	740
VM3225/3225A/3225B	10125	6840	4980	2984	4614	1940	4326	3000	740	508
VM4225/4225A/4225B	12035	6840	4980	2984	4614	1940	4326	4000	740	508
VM5225/5225A/5225B	14035	6840	4980	2984	4614	1940	4326	4000	740	508
VM3230A	10125	6840	4515	2984	4614	1940	3642	3000	740	508
VM4230A	12035	6840	4515	2984	4614	1940	3642	4000	740	508
VM5230A	14035	6840	4515	2984	4614	1940	3642	4000	740	508

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03 Workshop & Equipment

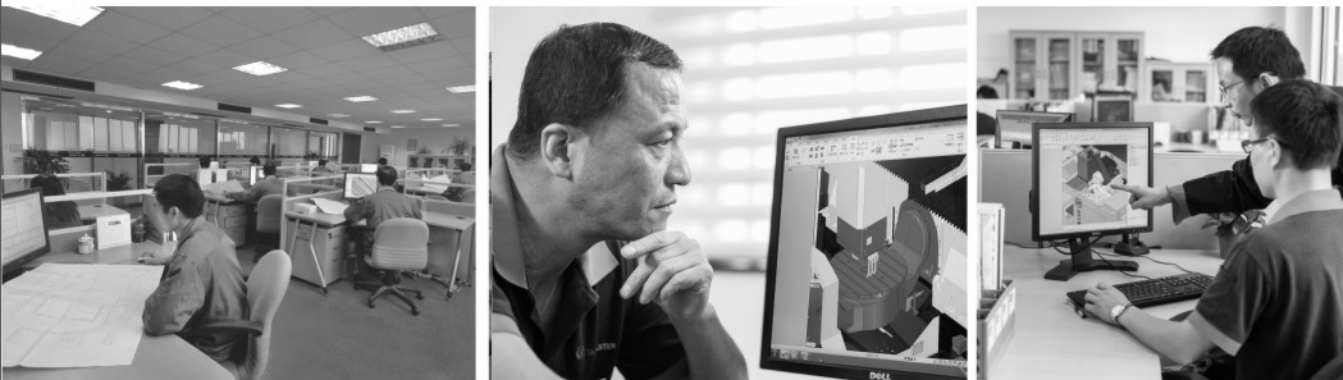
Decades experience and Germany technology keep Sky Master always supplying reliable products.



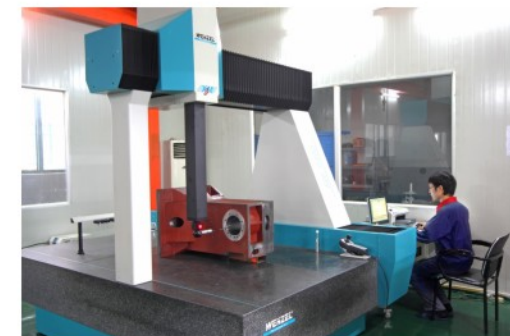
04 R&D, Inspection

- Sky Master work steadily in a spirit of responsibility for clients.
- Every machine is under strict quality control and inspection in order to keep the accuracy.
- We understand quality is essential to a company and more understand that product is important to the client.

Small steps make
large distance



Quality! Control every
detail always



05 Service

Use our wisdom to supply
you the best solution



Union
Efficiency

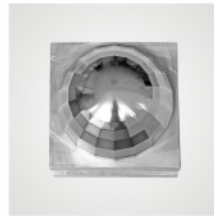


05.1 Trial Processing

Supply the trial processing
for clients



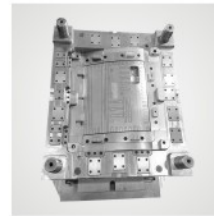
Benz testing sample



Round testing sample



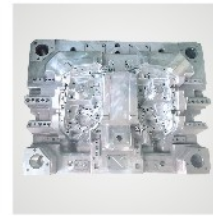
Aluminum die casting
mould



Auto interior decoration
mould



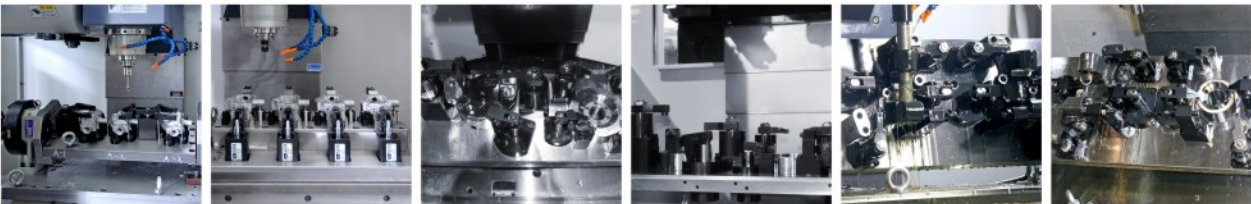
Auto lamp mould



Auto lamp mould

06 Automation&Turn-key Project

According to Industry 4.0,automation is the inevitable trend, industry robot is the critical factor in Chinese industry 4.0 strategy. Following the marketing requirement, SKY MASTER and WELLLIH robot cooperate and design the VL1100 with automatic flexible machining system which can execute work-piece lift, clamping, position ,controlling, machining, inspection and all around function. It supply the whole solution for industry automation and upgrade the SKY MASTER machine at same time.



07 Customer Application

Gain the customers reliance and support by manufacturing with heart always

