

► **Headquarter**

255 CAPITOL ST., LIVERMORE, CA 94551, USA

TEL:+1 925 443 1200

FAX:+1 925 443 1290

► **Production Line**

**1st Factory**

No. 5, Jingke E. Rd., Nantun Dist., Taichung City  
40852, Taiwan

**2nd Factory**

No.35, 36th Road, Industrial Park Taichung City  
40768, Taiwan

TEL:+886 4 2355 2495

FAX:+886 4 2355 2496



Designed by 箭鑽 ▶ 影畫行銷 2020.03

# Vertical Machining Center



Decide with Confidence



# General

Wide range production with verify level performance provide multiple choice for suitable model of application. Stand in customer's consideration, Akira Seiki machine performance value can stand the test of time.



**JR/SR**  
Primary Selection  
For General

**V**  
The Faster Road To  
Fine Finished

**SV**  
Ever Faster Cut Than  
Your Expectation

**HV-A**  
Advance Faster  
BT50 Machine

## Model

### JR/SR-Performa Junior

JR / SR2 / SR3  
JRXP / SR2XP / SR3XP  
SR32XP / SR42XP / SR52XP / SR45XP /  
SR55XP

## Model

### V-Performa Classic Extra Performance

V2 / V2.5 / V3 / V4 / V5 / V4.5 / V5.5 / V6 / V8 / V10  
V2XP / V2.5XP / V3XP / V4XP / V5XP  
V4.5XP / V5.5XP / V6XP / V8XP / V10XP

## Model

### SV-Super Vertical

SV550 / SV760 / SV815 / SV1050  
SV1300 / SV1150 / SV1350 / SV1630  
SV2060 / SV2600

## Model

### HV-A-Superior Speed Heavy Duty

HV4.5A / HV5.5A / HV6A / HV8A  
HV10A

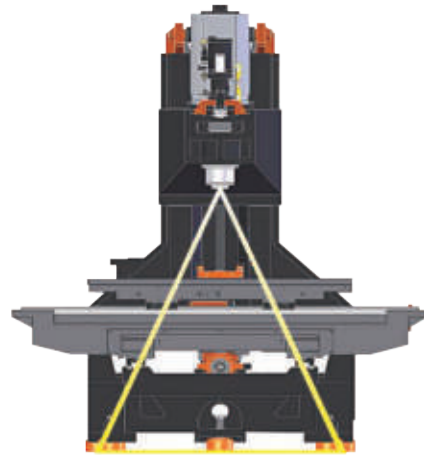
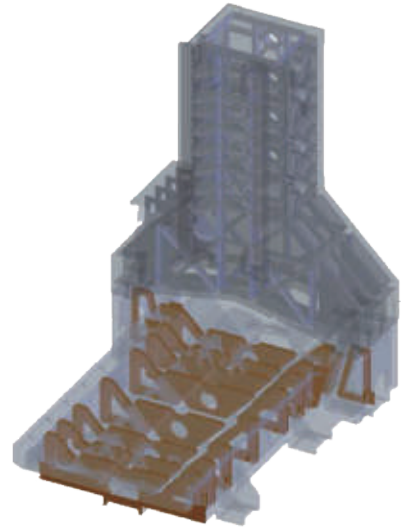


# Rigid Physical Foundation

Akira Seiki VMC casting are steady to perform outstanding dynamic accuracy and vibration absorption while rapid cutting.

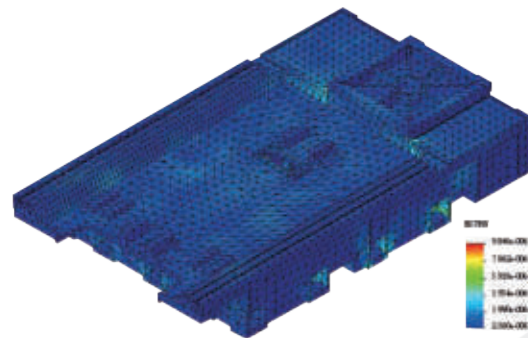
## Reinforced Frame Construction

Internal ribs of each keycasting elements are enforced for deformation-resistant and anti-damping vibration.



## Golden Triangular Frame

In optimum span of bed base and guide ways supports the superior acceleration and deceleration movement.



## Scientific Technology Support

Digital FEA (Finite Element Analysis) scientifically demonstrates rigid structure and approves excellent dynamic accuracy and vibration absorb by advanced digital assay tool.

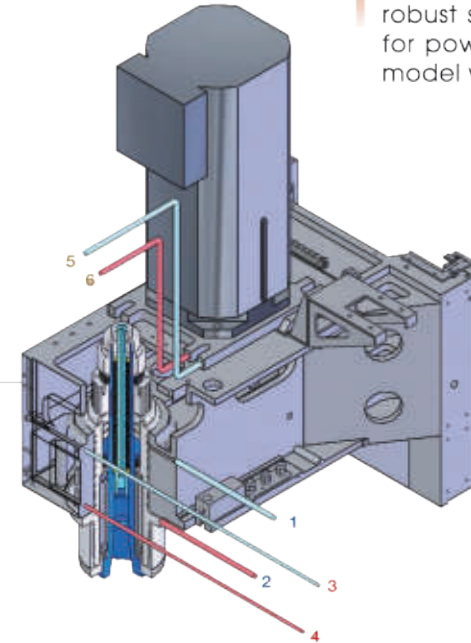
## Meehanite High Quality Casting Iron

Assures permanent rigidity and accuracy for each Akira Seiki machine casting frame by the authorized Meehanite foundries.



## A Rigid Column

Optimum span steady base with A-type large box way column design, Z-axis employs robust slide way and spindle head cartridge for powerful pocketing and fast milling. (For model with Y-axis travel upper 540mm)



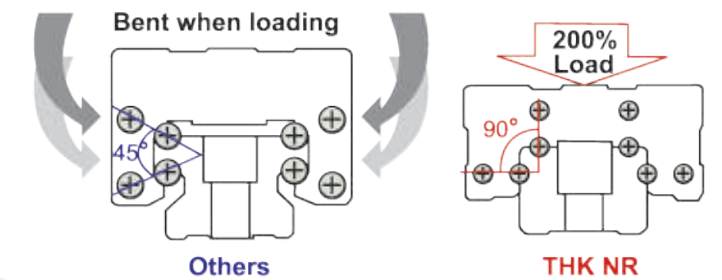
## Head Stock Thermal Control

Technology of coolant circulated inside the casting headstock to maintain the constant temperature to prevent deformation which generated by spindle during cutting.



## Double-anchored Ballscrew

Enhance high speed cutting rigidity and 100% laser track and ball bar collaboration test to ensure geometry accuracy.



(except JR/SR series)  
(V2/V2.5/SV550/SV760 Z axis employ Tsubaki linear guide way.)

## Most Recommend Heavy Load Linear Guide Way (THK NR Type)

Least friction coefficient and preloading for clearance-free between moving surface, precise ball linear guide ways are most compatible for fast movement and high positioning and repeatability accuracy.



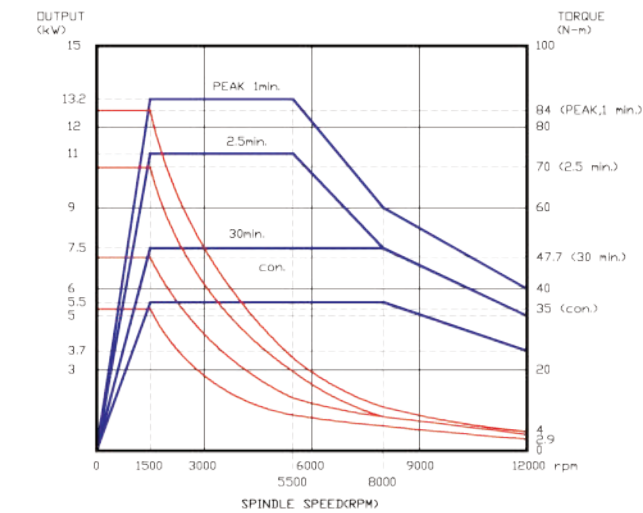
# Spindle Feature

High precision NSK 4+2 bearings support the cutting reaction and keep longer running without the damage of burning with using high speed and high rigidity spindle.

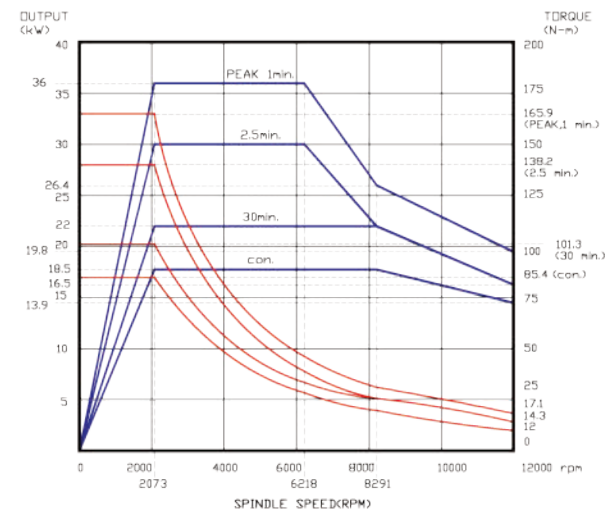


Inherit high speed machining conception, Akira Seiki V/SV series is capable of high speed heavy cutting by employing high output spindle motor with max 42HP/117.3 N-m 12k/15k rpm spindle which can reduce machining time dramatically.

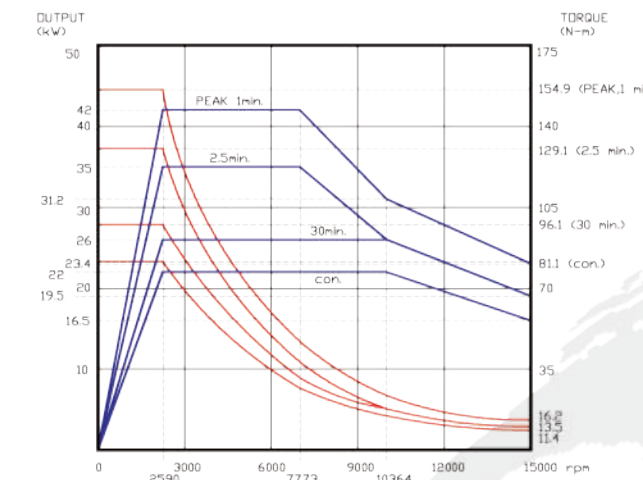
## JR/SR series



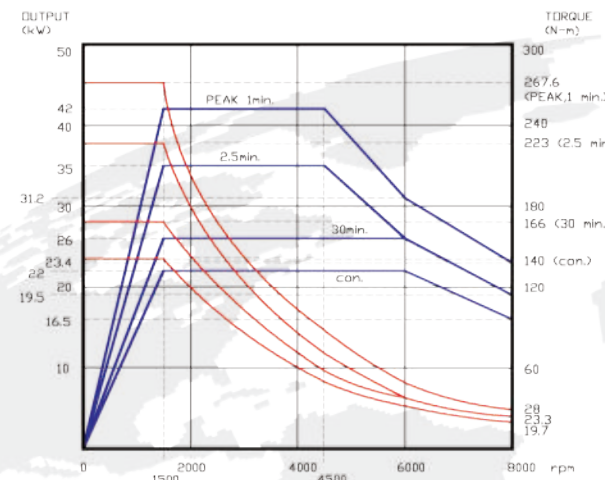
## V series except V2 / V2.5



## SV series except SV550 / SV760



## HV-A series

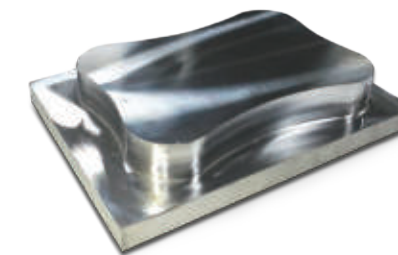


# Cutting Application



## Soft Material

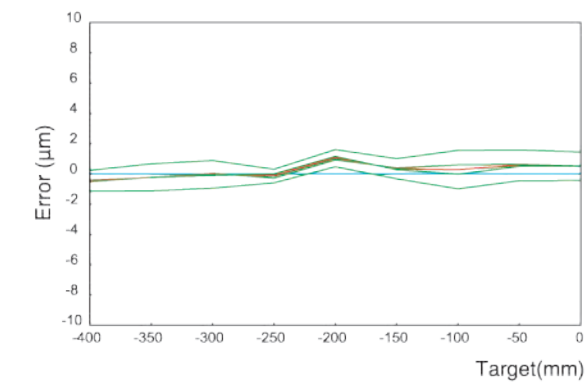
- Material : A6061 Aluminum
  - Face Mill Cutter: 50 mm
  - Spindle Speed: 10,500 rpm
  - Cutting Feed: 9,525 mm/min
  - Width : 28.4 mm
  - Depth: 5.3 mm
  - Removal Rate: 1435 cc/min
- End Mill Cutter: 19.5 mm
  - Spindle Speed: 11,500 rpm
  - Cutting Feed: 8,255 mm/min
  - Width: 12 mm
  - Depth: 12.5 mm
  - Removal Rate: 1238 cc/min



## Hard Material

- Material: S45C Steel (JIS), CK45(DIN), 1045(ASM)
  - Face Mill Cutter: 50 mm
  - Spindle Speed: 4,000 rpm
  - Cutting Feed: 12,827 mm/min
  - Width: 28 mm
  - Depth: 1.27mm
  - Removal Rate: 456 cc/min
- End Mill Cutter: 50 mm
  - Spindle Speed: 4,000 rpm
  - Cutting Feed: 2,032 mm/min
  - Width: 4.1 mm
  - Depth: 17 mm
  - Removal Rate: 142 cc/min

## Laser



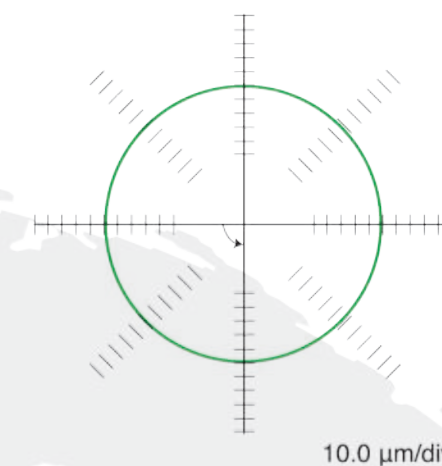
## VDI 3441 - linear Machine : V2.5XP

U average: 0.193  
Ps average: 1.454  
Repeatability, Ps m: 1.922

## Axis : Y

Reversal error, U ma: 0.620  
Position accuracy, P: 2.761  
Position error, Pa: 1.500

## Ball Bar



## Dynamic Ballbar Machine: V2.5XP

Backlash (µm)		Lateral Play (µm)	
X	0.0 0.3	X	0.1 0.0
Y	0.7 0.1	Y	0.5 -0.4
Reversal Spikes (µm)		Cyclic Error (µm)	
X	1.7 2.3	X	0.4 0.3
Y	0.9 1.3	Y	0.6 0.6
Other Feature			
Servo mismatch	0.02 ms		
Squareness	-0.6 µm/m		
Straightness X	1.9 µm		
Straightness Y	-0.8 µm		
Scaling mismatch	-2.0 µm		
Circularity	4.1 µm		

\*Cutting test results indicated in this catalog are provided as examples. The measured results may not be obtained, due to differences in cutting conditions and environmental conditions.



# AKIRA M<sub>i</sub>845 Control

AKIRA M<sub>i</sub>845 coordinate the CNC digital and world leader drives system. High-resolution servo stabilize precise axis positioning for high complex and accuracy jobs.

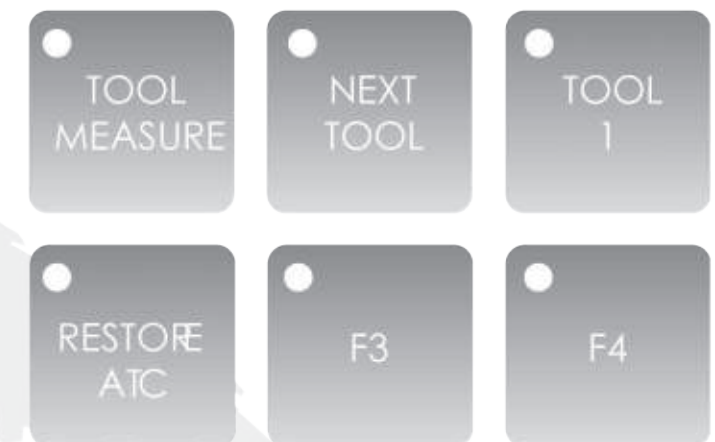
	JR/SR	V/HV-A	SV
<b>CPU Processor / Base Specification</b>			
RISC CPU Processor	RISC 64 bit	RISC 64 bit	RISC 64 bit
Maximum program capacity	500KB (1280M)	500KB (1280M)	500KB (1280M)
Extended workpiece coordinate system selection (54/102 sets)	48 sets	48 sets	300 sets
Max. variable number	700 sets	700 sets	800 sets
Tool offset amount	400 sets	400 sets	999 sets
<b>Display Unit Related Specification</b>			
10.4 inch color display unit	X	●	●
<b>High Speed &amp; High Accuracy Machining Control Related Functions</b>			
High accuracy control 1 (G8P1/G61.1)	●	●	●
High speed & high accuracy machining control model (G05.1Q1)	(16.8 M/min)	(16.8 M/min)	(16.8 M/min)
High speed & high accuracy machining control model (G05P10000)	(33.7 M/min)	(33.7 M/min)	(33.7 M/min)
Fine spindle interpolation (G05.1Q2)	X	X	●
SSS control (super-smooth-surface)	▲	▲	●
Backlash compensation	●	●	●
Ballscrew thermal expansion compensation (hardware needed)	●	●	●
<b>Language Display &amp; Graphoc Check Related Function</b>			
Display language selection	17	17	17
3D solid program check function	●	●	●
Graphic check and graphic trace	●	●	●
<b>Operation And Programming Support Related Functions</b>			
Workpiece position measurement	●	●	●
Workpiece rotation measurement	●	●	●
Buffer correction	●	●	●
Collation stop	●	●	●
Verification stop	●	●	●
Program restart after NC power shut down	●	●	●
Tool position offset (G45-G48)	●	●	●
Special fixed cycle (G12/G13/G34/G35/G36/G37.1/G75)	●	●	●
Scaling function (G50/G51)	●	●	●
Coordinated rotation by program (G68/G69) and parameter	●	●	●
Deep hole synchronous tapping (Could return to R point)	●	●	●
High speed synchronous tapping (OMR-DDC) (Could return to R point)	●	●	●
High speed DI/OD refresh cycle	●	●	●
Multi-steps G00 rapid acceleration/ deceleration	●	●	●
Mirror image by parameter setting external input and G code (G50.1/G51.1)	●	●	●
Polar coordinate command (G15/G16)	●	●	●
Cylindrical interpolation	●	●	●
Spiral/conical interpolation	●	●	●
Front IC card mode	●	●	●

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M<sub>i</sub>845 Controller.

## AKIRA M<sub>i</sub>845 Control High Achievement And Easy Operation For Machining Efficiency

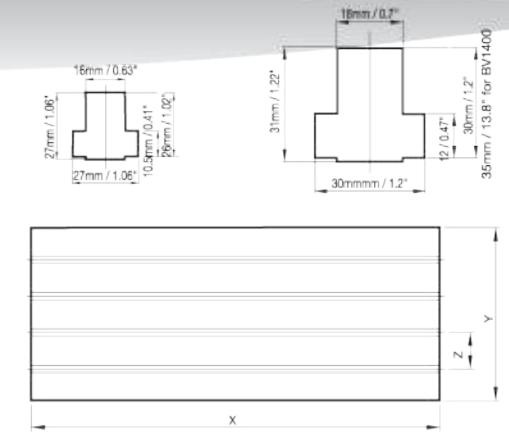
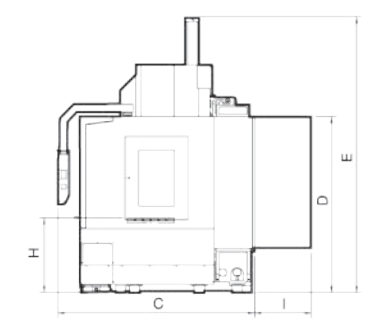
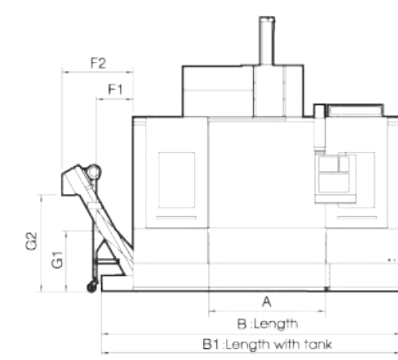


- Powerful 64bit CPU incorporate the fastest-ever computation processions and program scanning.
- Full look ahead up to 500 blocks and G05P10000 High Speed and High Accuracy Control allow contouring rapid and smoother motion.
- 5120M (2MB) initial program memory is available as the largest industrial NC program stored capability (option)
- Full Graphic Function including simulate run, tool path check and graphic scaling the same coordinate.
- 3 M-codes In the same line achieve least code-code pause for operation efficiency.
- T-code and M-code In the same line is readable such as M6TX, TXM6 or TX M6.
- Simple to correct 3 level alarm condition within same page, no inconvenience of forth and back viewing.
- Program Reserver available to adapt flash memory card & Ethernet connection.
- High compatibility to Fanuc control programming.
- One-Button Features ease the often used functions instead of multi-steps procedure. Only by one-button commend to complete





# Foundation



	Door Open		Length		Width	Ele. Door Open	Max Height	Chip Screw Length		Chip Conveyor Length	Chip Screw Height	Conveyor	Floor to Table	Ele Door Width	T-Slot	Table Length	Table Width	Table Pitch
	A	B	B1	C	D	E	F1	F2	G1	G2	H	I	T	X	Y	Z		
<b>JR/SR Series</b>										<b>JR/SR Series</b>								
JR	700	1900	1900	1935	1770	2500	500	945	748	800	820	550	16	560	380	80		
SR2	700	1900	1900	1935	1770	2500	500	945	748	800	820	550	16	700	380	80		
SR3	880	2100	2100	1935	1770	2500	500	945	748	800	830	550	16	910	380	80		
<b>V Series</b>										<b>V Series</b>								
V2 / V2XP	770	1900	1900	2200	1945	2640	500	945	750	800	790	550	18	700	400	80		
V2.5 / V2.5XP	940	2200	2200	2200	1945	2640	500	945	750	800	790	550	18	910	400	80		
SR32XP / V3 / V3XP	880	2500	2900	2240	2120	3130	560	800	755	850	895	750	18	950	480	80		
SR42XP / V4 / V4XP	1260	2900	3300	2240	2120	3130	470	900	755	850	895	750	18	1200	480	80		
SR52XP / V5 / V5XP	1510	3400	3800	2240	2120	3130	470	800	755	850	930	750	18	1450	480	80		
SR45XP / V4.5 / V4.5XP	1140	3000	3400	2495	2200	3450	450	800	770	850	935	750	18	1300	600	100		
SR55XP / V5.5 / V5.5XP	1460	3400	3800	2495	2210	3450	470	800	770	850	955	750	18	1500	600	100		
V6 / V6XP	1780	4300	4300	3525	2195	3385	500	800	680	850	1020	550	18	1750	800	125		
V8 / V8XP	2190	4950	4950	3525	2195	3385	500	800	680	850	1070	550	18	2150	800	125		
V10 / V10XP	2740	6400	6400	3960	2115	3330	520	850	745	850	1100	550	18	2750	950	125		
<b>SV Series</b>										<b>SV Series</b>								
SV550	770	1900	2100	2200	1945	2640	-	945	-	800	790	550	18	700	400	80		
SV760	940	2200	2400	2200	1945	2640	-	945	-	800	790	550	18	910	400	80		
SV815	880	2500	2900	2240	2120	3130	-	800	-	850	895	750	18	950	480	80		
SV1050	1260	2900	3300	2240	2120	3130	-	900	-	850	895	750	18	1200	480	80		
SV1300	1510	3400	3800	2240	2120	3130	-	800	-	850	930	750	18	1450	480	80		
SV1150	1140	3000	3400	2495	2210	3450	-	800	-	850	935	750	18	1300	600	100		
SV1350	1460	3400	3800	2495	2210	3450	-	800	-	850	955	750	18	1500	600	100		
SV1630	1780	4300	4300	3400	2195	3385	-	800	-	850	1020	550	18	1750	800	125		
SV2060	2190	4950	4950	3400	2195	3385	-	800	-	850	1070	550	18	2150	800	125		
SV2600	2740	6200	6400	3960	2115	3330	-	850	-	850	1100	550	18	2750	950	125		
<b>HV-A Series</b>										<b>HV-A Series</b>								
HV4.5A	1140	3000	3400	2495	2210	3450	450	800	770	850	935	750	18	1300	600	100		
HV5.5A	1460	3400	3800	2495	2210	3450	470	800	770	850	955	750	18	1500	600	100		
HV6A	1780	4300	4300	3525	2195	3385	500	800	680	850	1020	550	18	1750	800	125		
HV8A	2190	4950	4950	3525	2195	3385	500	800	680	850	1070	550	18	2150	800	125		
HV10A	2740	6200	6400	3960	2115	3330	520	850	745	850	1100	550	18	2750	950	125		

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M1845 Controller.



## JR / SR Series



Primary Selection For General

		JR	SR2	SR3	JR XP	SR2 XP	SR3 XP	SR32 XP	SR42 XP	SR52 XP	SR45 XP	SR55 XP	
<b>CONTROL SYSTEM</b>		AKIRA M845 (Fanuc G code compatible)						AKIRA M845 (Fanuc G code compatible)					
<b>TRAVEL</b>													
X Axis Travel	mm/inch	410 / 16.1	550 / 21.7	762 / 30	410 / 16.1	550 / 21.7	762 / 30	815 / 32.1	1050 / 41.3	1300 / 51.2	1150 / 45.3	1350 / 53	
Y Axis Travel	mm/inch	430 / 16.9	430 / 16.9	430 / 16.9	430 / 16.9	430 / 16.9	430 / 16.9	540 / 21.3	540 / 21.3	540 / 21.3	640 / 25	640 / 25	
Z Axis Travel	mm/inch	460 / 18.1	460 / 18.1	460 / 18.1	460 / 18.1	460 / 18.1	460 / 18.1	560 / 22	560 / 22	560 / 22	660 / 26	660 / 26	
Spindle nose to table surface	mm/inch	75~535 / 3~21	75~535 / 3~21	75~535 / 3~21	75~535 / 3~21	75~535 / 3~21	75~535 / 3~21	75~635 / 3~25	75~635 / 3~25	75~635 / 3~25	100~760 / 4~30	100~760 / 4~30	
Spindle center to column cover	mm/inch	435 / 17	435 / 17	435 / 17	435 / 17	435 / 17	435 / 17	550 / 21.7	550 / 21.7	550 / 21.7	640 / 25	640 / 25	
<b>TABLE</b>													
Table size (L x W)	mm/inch	560 x 380 / 22 x 15	700 x 380 / 28 x 15	910 x 380 / 36 x 15	560 x 380 / 22 x 15	700 x 380 / 28 x 15	910 x 380 / 36 x 15	950 x 480 / 37.4 x 19	1200 x 480 / 47.2 x 19	1450 x 480 / 57 x 19	1300 x 600 / 51.1 x 23.6	1500 x 600 / 59 x 23.6	
T slot	mm/inch	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	16 x 80 x 4 slots / 0.63 x 3.15 x 4 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	
Max. Loading	kgs/lbs	432 / 952	576 / 1270	792 / 1746	432 / 953	576 / 1270	792 / 1746	1080 / 2381	1176 / 2593	1296 / 2857	1560 / 3440	1800 / 3968	
Standard Loading	kgs/lbs	360 / 794	480 / 1058	660 / 1455	360 / 794	480 / 1058	660 / 1455	900 / 1984	980 / 2161	1080 / 2381	1300 / 2867	1500 / 3307	
<b>SPINDLE</b>													
Max. Motor Power (Peak)	HP	12	15	15	12	15	15	18	18	18	18	18	
Max. Speed	rpm	9,000	9,000	9,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000	
Spindle Taper	ISO 40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	
<b>FEED</b>													
Rapid feed X / Y / Z	M/min ipm	30 / 30 / 24 1181 / 1181 / 945	30 / 30 / 24 1181 / 1181 / 945	30 / 30 / 24 1181 / 1181 / 945	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	30 / 30 / 25 1181 / 1181 / 984	30 / 30 / 25 1181 / 1181 / 984	30 / 30 / 25 1181 / 1181 / 984	30 / 30 / 25 1181 / 1181 / 984	30 / 30 / 25 1181 / 1181 / 984	
Cutting feed X / Y / Z	M/min ipm	10 / 10 / 10 394 / 394 / 394	10 / 10 / 10 394 / 394 / 394	10 / 10 / 10 394 / 394 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 394	
<b>ACCURACY</b>													
Positioning	mm/inch	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	
Repeatability	mm/inch	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	
<b>ATC</b>													
Tool Storage Arm ATC	-	16T	20T	20T	16T	20T	20T	24T	24T	24T	24T	24T	
Max. Tool Diameter	mm/inch	75 / 3	75 / 3	75 / 3	75 / 3	75 / 3	75 / 3	80 / 3.2	80 / 3.2	80 / 3.2	80 / 3.2	80 / 3.2	
Max. Tool Diameter (without neighbor tool)	mm/inch	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	150 / 5.9	
Max. Tool Length	mm/inch	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	
Max. Tool Weight	kgs/lbs	7/15	7/15	7/15	7/15	7/15	7/15	7/15	7/15	7/15	7/15	7/15	
Tool to Tool Time(60hz)	sec.	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	
<b>GENERAL</b>													
Tank Capacity	liter/gal	150 / 39.6	150 / 39.6	150 / 39.6	150 / 39.6	150 / 39.6	150 / 39.6	350 / 92.5	350 / 92.5	400 / 105.7	350 / 92.5	400 / 105.7	
Chip Disposal	-	Drawer	Drawer	Drawer	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	
Air Pressure Requirement	Mpa/psi	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	
Power Requirement	KVA	20	20	20	20	20	20	30	30	30	30	30	
Floor Space	mm/inch	1900 x 1935 / 75 x 76	1900 x 1935 / 75 x 76	2100 x 1935 / 83 x 76	2400 x 1935 / 94 x 76	2400 x 1935 / 94 x 76	2600 x 1935 / 102 x 76	3020 x 2240 / 119 x 88	3370 x 2240 / 133 x 88	3870 x 2240 / 154 x 88	3450 x 2495 / 136 x 98	3870 x 2495 / 154 x 98	
Weight	kgs/lbs	2850 / 6283	3250 / 7165	3480 / 7672	3202 / 7059	3420 / 7539	3650 / 8046	4900 / 10805	5800 / 12790	6600 / 14553	7810 / 17218	8110 / 17879	

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M845 Controller.



## V Series

The Faster Road To Fine Finished



		V2		V2.5		V3		V4		V5		V4.5		V5.5		V6		V8		V10	
		V2 XP		V2.5 XP		V3 XP		V4 XP		V5 XP		V4.5 XP		V5.5 XP		V6 XP		V8 XP		V10 XP	
<b>CONTROL SYSTEM</b>		AKIRA M845 (Fanuc G code compatible)										AKIRA M845 (Fanuc G code compatible)									
<b>TRAVEL</b>																					
X Axis Travel	mm/inch	550 / 21.7		760 / 30		815 / 32.1		1050 / 41.3		1300 / 51.2		1150 / 45.3		1350 / 53		1630 / 64.2		2060 / 81.1		2600 / 102.3	
Y Axis Travel	mm/inch	445 / 17.5		445 / 17.5		540 / 21.3		540 / 19.8		540 / 21.3		640 / 25		640 / 25		850 / 33.5		850 / 33.5		1030 / 40.6	
Z Axis Travel	mm/inch	520 / 20.5		520 / 20.5		560 / 22		560 / 22		560 / 22		660 / 26		660 / 26		815 / 32		815 / 32		815 / 32	
Spindle nose to table surface	mm/inch	75~595 / 3~23.4		75~595 / 3~23.4		75~635 / 3~25		75~635 / 3~25		75~595 / 3~25		100~760 / 4~30		100~760 / 4~30		100~915 / 4~36		100~915 / 4~36		100~915 / 4~36	
Spindle center to column cover	mm/inch	460 / 18		460 / 18		550 / 21.7		550 / 21.7		550 / 21.7		640 / 25		640 / 25		865 / 34		865 / 34		1050 / 41.3	
<b>TABLE</b>																					
Table size (L x W)	mm/inch	700 x 400 / 27.6 x 15.8		910 x 400 / 35.8 x 15.8		950 x 480 / 37.4 x 19		1200 x 480 / 47.2 x 19		1450 x 480 / 57 x 19		1300 x 600 / 51.1 x 23.6		1500 x 600 / 59 x 23.6		1750 x 800 / 69 x 31.5		2150 x 800 / 84.7 x 31.5		2750 x 950 / 108.2 x 37.4	
T slot	mm/inch	18 x 80 x 4 slots / 0.7 x 3.15 x 4 slots		18 x 80 x 4 slots / 0.7 x 3.15 x 4 slots		18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots		18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots		18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots		18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots		18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots		18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots		18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots		18 x 125 x 7 slots / 0.7 x 4.9 x 7 slots	
Max. Loading	kgs/lbs	720 / 1588		960 / 2116		1080 / 2380		1176 / 2592		1296 / 2857		1560 / 3439		1800 / 3968		2760 / 6085		3240 / 7142		4320 / 7936	
Standard Loading	kgs/lbs	600 / 1323		800 / 1764		900 / 1984		980 / 2160		1080 / 2381		1300 / 2866		1500 / 3307		2300 / 5071		2700 / 5952		3600 / 6614	
<b>SPINDLE</b>																					
Max. motor power (Peak)	HP	V = 20	XP = 22	V = 20	XP = 22	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35	V = 30	XP = 35
Max. Speed	rpm	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000	10,000	12,000
		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)		8000 rpm (OPT)	
Spindle Taper	ISO 40	BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40		BT40 / CAT40	
<b>FEED</b>																					
Rapid feed X / Y / Z	M/min ipm	40 / 40 / 30 1574 / 1574 / 1181		40 / 40 / 30 1574 / 1574 / 1181		40 / 40 / 25 1574 / 1574 / 984		40 / 40 / 25 1574 / 1574 / 984		40 / 40 / 25 1574 / 1574 / 984		30 / 30 / 25 1181 / 1181 / 984		30 / 30 / 25 1181 / 1181 / 984		30 / 30 / 25 1181 / 1181 / 984		30 / 30 / 25 1181 / 1181 / 984		30 / 30 / 25 1181 / 1181 / 984	
		44 / 44 / 36 1732 / 1732 / 1417		44 / 44 / 36 1732 / 1732 / 1417		44 / 44 / 25 1732 / 1732 / 984		44 / 44 / 25 1732 / 1732 / 984		44 / 44 / 25 1732 / 1732 / 984		33 / 33 / 25 1299 / 1299 / 984		33 / 33 / 25 1299 / 1299 / 984		33 / 33 / 25 1299 / 1299 / 984		33 / 33 / 25 1299 / 1299 / 984		33 / 33 / 25 1299 / 1299 / 984	
Cutting feed X / Y / Z	M/min ipm	18 / 18 / 18 709 / 709 / 709		18 / 18 / 18 709 / 709 / 709		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394		10 / 10 / 10 394 / 394 / 394	
		24 / 24 / 24 945 / 945 / 945		24 / 24 / 24 945 / 945 / 945		12 / 12 / 10 472 / 472 / 394		12 / 12 / 10 472 / 472 / 394		12 / 12 / 10 472 / 472 / 394		12 / 12 / 12 472 / 472 / 472		12 / 12 / 12 472 / 472 / 472		12 / 12 / 12 472 / 472 / 472		12 / 12 / 12 472 / 472 / 472		12 / 12 / 12 472 / 472 / 472	
<b>ACCURACY</b>																					
Positioning	mm/inch	0.01 / 0.00039		0.01 / 0.00039		0.01 / 0.00039		0.01 / 0.00039		0.01 / 0.00039		0.01 / 0.00039		0.01 / 0.00039		0.015 / 0.00059		0.015 / 0.00059		0.015 / 0.00059	
Repeatability	mm/inch	±0.003 / ±0.00012		±0.003 / ±0.00012		±0.003 / ±0.00012		±0.003 / ±0.00012		±0.003 / ±0.00012		±0.003 / ±0.00012		±0.003 / ±0.00012		±0.005 / ±0.00020		±0.005 / ±0.00020		±0.005 / ±0.00020	
<b>ATC</b>																					
Tool Storage Arm ACT	-	28T		28T		28T		28T		28T		28T		28T		28T		28T		28T	
Max. Tool Diameter	mm/inch	65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6		65 / 2.6	
Max. Tool Diameter (without neighbor tool)	mm/inch	130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1		130 / 5.1	
Max. Tool Length	mm/inch	250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8		250 / 9.8	
Max. Tool Weight	kgs/lbs	7 / 15		7 / 15		7 / 15		7 / 15		7 / 15		7 / 15		7 / 15		7 / 15		7 / 15		7 / 15	
Tool to Tool Time (60hz)	sec.	2.2		2.2		2.2		2.2		2.2		2.2		2.2		2.2		2.2		2.2	
<b>GENERAL</b>																					
Tank Capacity	liter/gal	250 / 66		250 / 66		350 / 92.5		350 / 92.5		400 / 105.7		350 / 92.5		400 / 105.7		640 / 169		700 / 185		900 / 237.8	
Chip Disposal	-	Drawer		Drawer		Drawer		Drawer		Drawer		Drawer		Drawer		Drawer		Drawer		Drawer	
		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw		Chip Screw	
Air Pressure Requirement	Mpa/psi	0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5		0.5 / 72.5	
Power Requirement	KVA	20		20		30		30		30		30		30		30		30		30	
Floor Space	mm/inch	1900 x 2200 / 75 x 87 2400 x 2200 / 94.5 x 87		2200 x 2200 / 87 x 87 2700 x 2200 / 106 x 87		2900 x 2240 / 114 x 88 3020 x 2240 / 119 x 88		3300 x 2240 / 130 x 88 3370 x 2240 / 133 x 88		3800 x 2240 / 146 x 88 3870 x 2240 / 153 x 88		3400 x 2495 / 134 x 98 3450 x 2495 / 136 x 98		3800 x 2495 / 150 x 98 3870 x 2495 / 152 x 98		4300 x 3525 / 169 x 139 4730 x 3540 / 186 x 139		4950 x 3525 / 195 x 139 5450 x 3540 / 215 x 139		6400 x 3950 / 252 x 156 6400 x 3950 / 252 x 156	
Weight	kgs/lbs	3930 / 8664 4150 / 9149		4180 / 9215 4400 / 9700		5700 / 12566 6000 / 13227		6600 / 14550 6900 / 15211		7400 / 16314 7700 / 16975		7810 / 17218 8110 / 17879		8110 / 17879 8410 / 18540		12300 / 27116 12600 / 27778		14500 / 31967 14800 / 32628		18130 / 39969 18230 / 40190	

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M845 Controller.





Ever Faster Cut Than Your expectation

		SV550	SV760	SV815	SV1050	SV1300	SV1150	SV1350	SV1630	SV2060	SV2600	
<b>CONTROL SYSTEM</b>		AKIRA M:845					AKIRA M:845					
<b>TRAVEL</b>						<b>TRAVEL</b>						
X Axis Travel	mm/inch	550 / 21.7	760 / 30	815 / 32	1050 / 41.3	1300 / 51.2	1150 / 45.3	1350 / 53	1630 / 64.2	2060 / 81.1	2600 / 102.3	
Y Axis Travel	mm/inch	445 / 17.5	445 / 17.5	540 / 21.3	540 / 21.3	540 / 21.3	640 / 25	640 / 25	850 / 33.5	850 / 33.5	1030 / 40.6	
Z Axis Travel	mm/inch	520 / 20.5	520 / 20.5	560 / 22	560 / 22	560 / 22	660 / 26	660 / 26	815 / 32	815 / 32	815 / 32	
Spindle nose to table surface	mm/inch	75~595 / 3~23.4	75~595 / 3~23.4	75~635 / 3~25	75~635 / 3~25	75~635 / 3~25	100~760 / 4~30	100~760 / 4~30	100~915 / 4~36	100~915 / 4~36	100~915 / 4~36	
Spindle center to column cover	mm/inch	460 / 18	460 / 18	550 / 21.7	550 / 21.7	550 / 21.7	640 / 25	640 / 25	865 / 34	865 / 34	1050 / 41.3	
<b>TABLE</b>						<b>TABLE</b>						
Table size (L x W)	mm/inch	700 x 400 / 27.6 x 15.8	910 x 400 / 35.8 x 15.8	950 x 480 / 37.4 x 19	1200 x 480 / 47.2 x 19	1450 x 480 / 57 x 19	1300 x 600 / 51.1 x 23.6	1500 x 600 / 59 x 23.6	1750 x 800 / 69 x 31.5	2150 x 800 / 84.7 x 31.5	2750 x 950 / 108.2 x 37.4	
T slot	mm/inch	18 x 80 x 4 slots / 0.7 x 3.15 x 4 slots	18 x 80 x 4 slots / 0.7 x 3.15 x 4 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots	18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots	18 x 125 x 7 slots / 0.7 x 4.9 x 7 slots	
Max. Loading	kgs/lbs	720 / 1588	960 / 2117	1080 / 2380	1176 / 2592	1296 / 2857	1560 / 3439	1800 / 3968	2760 / 6085	3240 / 7142	3600 / 7937	
Standard Loading	kgs/lbs	600 / 1323	800 / 1764	900 / 1984	980 / 2160	1080 / 2381	1300 / 2866	1500 / 3307	2300 / 5071	2700 / 5952	3000 / 6614	
<b>SPINDLE</b>						<b>SPINDLE</b>						
Max. motor power (Peak)	HP	25	25	42	42	42	42	42	42	42	42	
Max. Speed	rpm	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	
Spindle Taper	ISO 40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	
Method of Spindle Chilling	-	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	
<b>FEED</b>						<b>FEED</b>						
Rapid feed X / Y / Z	M/min ipm	48 / 48 / 36 1890 / 1890 / 1417	48 / 48 / 36 1890 / 1890 / 1417	48 / 48 / 36 1890 / 1890 / 1417	48 / 48 / 36 1890 / 1890 / 1417	48 / 48 / 36 1890 / 1890 / 1417	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	30 / 30 / 25 1181 / 1181 / 984	
Cutting feed X / Y / Z	M/min ipm	24 / 24 / 24 945 / 945 / 945	24 / 24 / 24 945 / 945 / 945	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	15 / 15 / 10 591 / 591 / 394	
<b>ACCURACY</b>						<b>ACCURACY</b>						
Positioning	mm/inch	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059	
Repeatability	mm/inch	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.003 / ±0.00012	±0.005 / ±0.00020	±0.005 / ±0.00020	±0.005 / ±0.00020	
<b>ATC</b>						<b>ATC</b>						
Tool Storage Arm ATC	-	28T	28T	36T	36T	36T	36T	36T	36T	36T	36T	
Max. Tool Diameter	mm/inch	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	
Max. Tool Diameter (without neighbor tool)	mm/inch	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	
Max. Tool Length	mm/inch	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	350 / 13.8	350 / 13.8	350 / 13.8	
Max. Tool Weight	kgs/lbs	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	
Tool to Tool Time(60hz)	sec.	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	
<b>GENERAL</b>						<b>GENERAL</b>						
Tank Capacity	liter/gal	250 / 66	250 / 66	350 / 92.5	350 / 92.5	400 / 105.7	350 / 92.5	400 / 105.7	640 / 169	700 / 185	900 / 237.8	
Chip Disposal	-	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	
Air Pressure Requirement	Mpa/psi	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	
Power Requirement	KVA	20	20	35	35	35	35	35	35	35	35	
Floor Space	mm/inch	2845 x 2200 / 112 x 87	3145 x 2200 / 124 x 87	3400 x 2240 / 134 x 88	3800 x 2240 / 150 x 88	4200 x 2240 / 169 x 88	3900 x 2495 / 154 x 98	4300 x 2495 / 169 x 98	5100 x 3540 / 201 x 139	5750 x 3540 / 226 x 139	7050 x 3950 / 278 x 156	
Weight	kgs/lbs	4250 / 9370	6280 / 13845	6280 / 13845	7180 / 15829	7980 / 17953	8390 / 18497	8690 / 19158	13000 / 28660	13700 / 30140	19500 / 42990	

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M:845 Controller.



## HV-A Series



Ever Faster Cut Than Your Expectation

		HV4.5A	HV5.5A	HV6A	HV8A	HV10A
<b>CONTROL SYSTEM</b>		AKIRA M <sub>c</sub> 845 (Fanuc G code compatible)			AKIRA M <sub>c</sub> 845 (Fanuc G code compatible)	
<b>TRAVEL</b>				<b>TRAVEL</b>		
X Axis Travel	mm/inch	1150 / 45.3	1350 / 53	1630 / 64.2	2060 / 81.1	2600 / 102.3
Y Axis Travel	mm/inch	640 / 25	640 / 25	850 / 33.5	850 / 33.5	1030 / 40.6
Z Axis Travel	mm/inch	660 / 26	660 / 26	815 / 32	815 / 32	815 / 32
Spindle nose to table surface	mm/inch	100~760 / 4~30	100~760 / 4~30	120~935 / 5~37	120~935 / 5~37	120~935 / 5~37
Spindle center to column cover	mm/inch	640 / 25	640 / 25	865 / 34	865 / 34	1050 / 41.3
<b>TABLE</b>				<b>TABLE</b>		
Table size (L x W)	mm/inch	1300 x 600 / 51.1 x 23.6	1500 x 600 / 59 x 23.6	1750 x 800 / 69 x 31.5	2150 x 800 / 84.7 x 31.5	2750 x 950 / 108.2 x 37.4
T slot	mm/inch	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.94 x 5 slots	18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots	18 x 125 x 6 slots / 0.7 x 4.9 x 6 slots	18 x 125 x 7 slots / 0.7 x 4.9 x 7 slots
Max. Loading	kgs/lbs	1560 / 3439	1800 / 3968	2760 / 6085	3240 / 7142	3600 / 7936
Standard Loading	kgs/lbs	1300 / 2866	1500 / 3307	2300 / 5071	2700 / 5952	3000 / 6614
<b>SPINDLE</b>				<b>SPINDLE</b>		
Max. Motor Power (Peak)	HP+	42	42	42	42	42
Max. Motor Power (30min)	HP	35	35	35	35	35
Max. Speed	rpm	8,000 / 6,000 (OPT)	8,000 / 6,000 (OPT)	8,000 / 6,000 (OPT)	8,000 / 6,000 (OPT)	8,000 / 6,000 (OPT)
Spindle Taper	ISO 50	BT50 / CAT50	BT50 / CAT50	BT50 / CAT50	BT50 / CAT50	BT50 / CAT50
Method of Spindle Chilling	-	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling
<b>FEED</b>				<b>FEED</b>		
Rapid Feed X / Y / Z	M/min ipm	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	36 / 36 / 30 1417 / 1417 / 1181	30 / 30 / 25 1181 / 1181 / 984
Cutting Feed X / Y / Z	M/min ipm	8 / 8 / 8 315 / 315 / 315	8 / 8 / 8 315 / 315 / 315	8 / 8 / 8 315 / 315 / 315	8 / 8 / 8 315 / 315 / 315	8 / 8 / 8 315 / 315 / 315
<b>ACCURACY</b>				<b>ACCURACY</b>		
Positioning	mm/inch	0.01 / 0.00039	0.01 / 0.00039	0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059
Repeatability	mm/inch	± 0.003 / ± 0.00012	± 0.003 / ± 0.00012	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020
<b>ATC</b>				<b>ATC</b>		
Arm ATC	-	28T	28T	28T	28T	28T
Max. Tool Diameter	mm/inch	100 / 3.9	100 / 3.9	100 / 3.9	100 / 3.9	100 / 3.9
Max. Tool Diameter (without neighbor tool)	mm/inch	200 / 7.9	200 / 7.9	200 / 7.9	200 / 7.9	200 / 7.9
Max. Tool Length	mm/inch	350 / 13.8	350 / 13.8	350 / 13.8	350 / 13.8	350 / 13.8
Max. Tool Weight	kgs/lbs	15 / 33	15 / 33	15 / 33	15 / 33	15 / 33
Tool to Tool Time (60hz)	sec.	3.5	3.5	3.5	3.5	3.5
<b>GENERAL</b>				<b>GENERAL</b>		
Tank Capacity	liter/gal	350 / 92.5	400 / 105.7	640 / 169	700 / 185	900 / 237.8
Chip Disposal	-	Drawer	Drawer	Drawer	Drawer	Drawer
Air Pressure Requirement	Mpa/psi	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5	0.5 / 72.5
Power Requirement	KVA	35	35	35	35	35
Floor Space	mm/inch	3400 x 2495 / 134 x 98	3800 x 2495 / 150 x 98	4300 x 3525 / 169 x 139	4950 x 3525 / 195 x 139	6200 x 3960 / 244 x 156
Weight	kgs/lbs	8380 / 18474	8380 / 18474	12900 / 28438	13600 / 29981	19800 / 43649

\*Please contact with your local distributor for the further information, those specs. and value based on AKIRA M<sub>c</sub>845 Controller.