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Vertical Machining Center

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-XP

Primary Selection
For General

V-XP

The Faster Road To
Fine Finished



SV

Ever Faster Cut Than
Your Expectation



HV-A

Advance Faster
BT50 Machine

Model

JR/SR-Performa Junior Extra Performance

JRXP / SR2XP / SR3XP
SR32XP / SR42XP / SR52XP / SR45XP
SR55XP

Model

V-Performa Classic Extra Performance

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

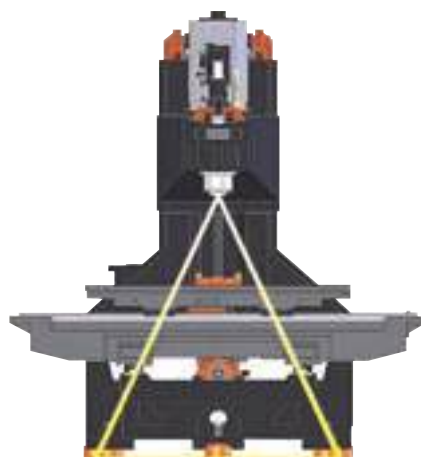
HV4.5A / HV5.5A / HV6A / HV8A
HV10A

Rigid Structure

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

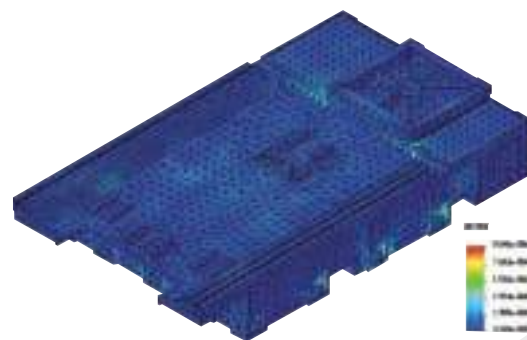
Reinforced Frame Construction

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.

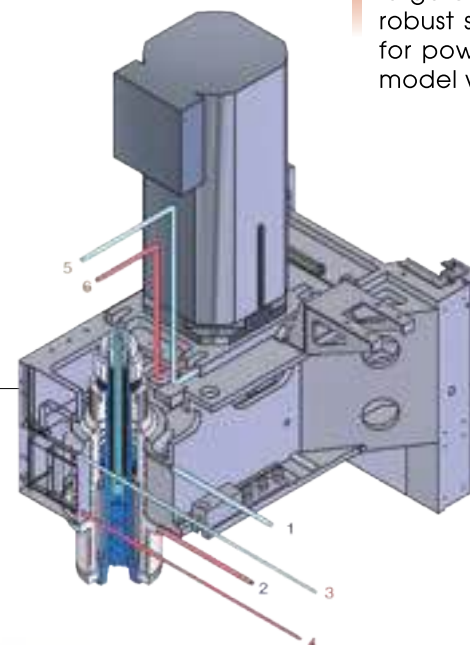
Meehanite High Quality Casting Iron

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)



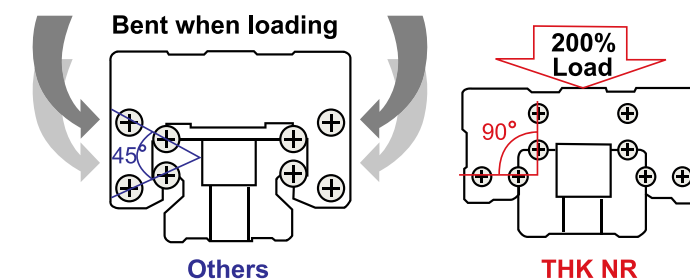
Head Stock Thermal Control

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)
(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.

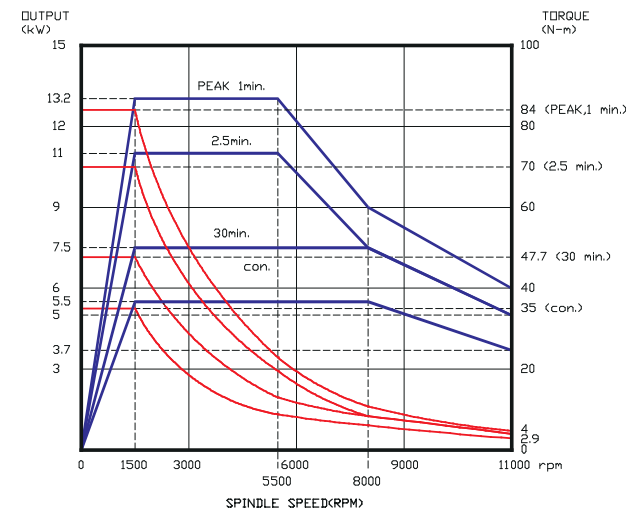
Spindle Feature

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

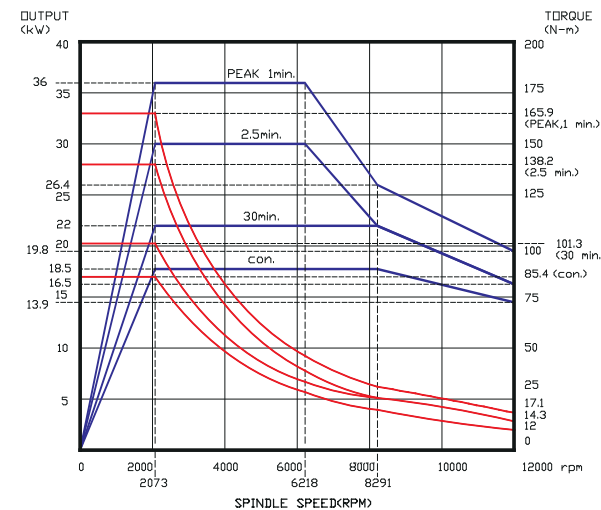


Inherit high speed machining conception, Akira Seiki V/SV series is capable of high speed heavy cutting by employing high output spindle motor with max 42HP/117.3 N-m 12k/15k rpm spindle which can reduce machining time dramatically.

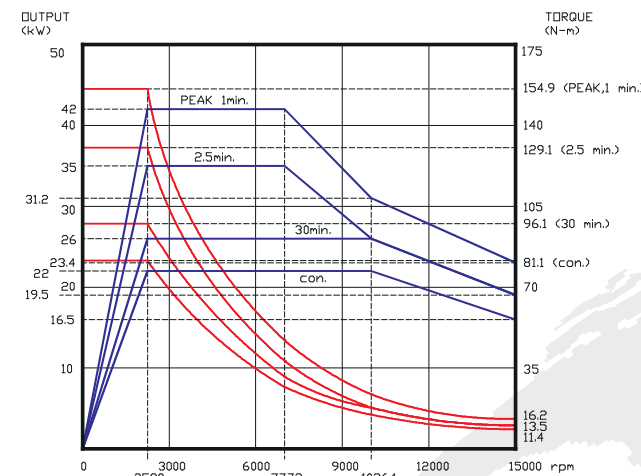
JR/SR-XP series



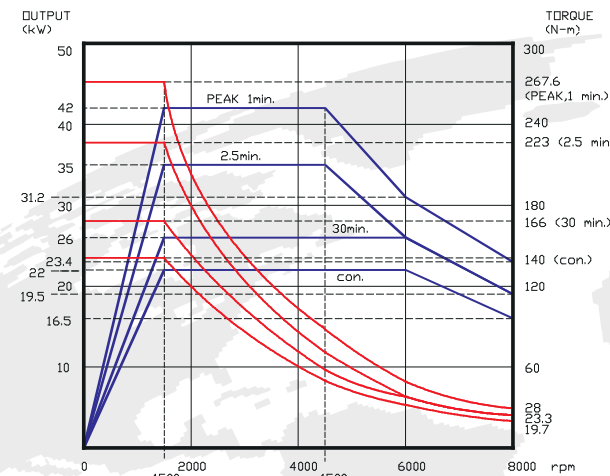
V-XP series except V2 / V2.5 XP



SV series except SV550 / SV760



HV-A series

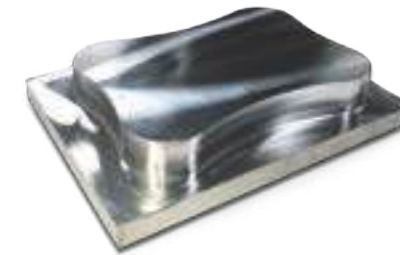


Cutting Application



Soft Material

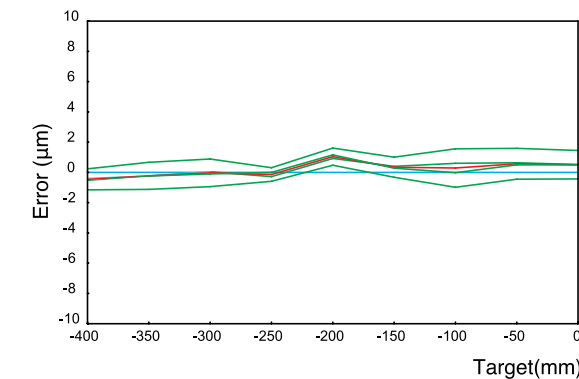
- Material : A6061 Aluminum
 - Face Mill Cutter: 50 mm
 - Spindle Speed: 10,500 rpm
 - Cutting Feed: 9,525 mm/min
 - Width : 28.4 mm
 - Depth: 5.3 mm
 - Removal Rate: 1435 cc/min
- End Mill Cutter: 19.5 mm
 - Spindle Speed: 11,500 rpm
 - Cutting Feed: 8,255 mm/min
 - Width: 12 mm
 - Depth: 12.5 mm
 -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



Hard Material

- Material: S45C Steel
 - 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



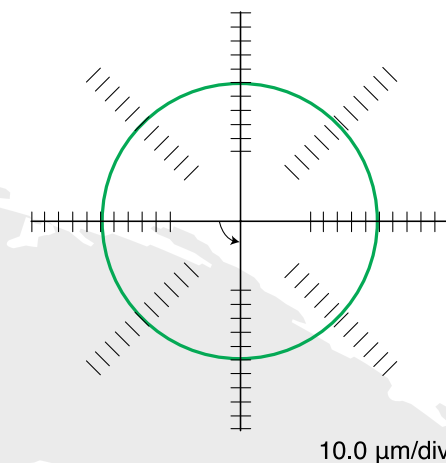
VDI 3441 - linear Machine : V2.5XP

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 ϵ 845 Control

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

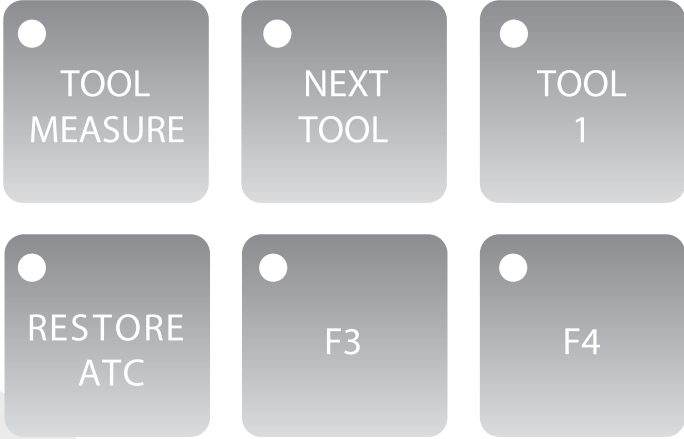
	JR/SR-XP	V-XP	SV
CPU Processor / Base Specification			
RISC CPU Processor	RISC 64 bit	RISC 64 bit	RISC 64 bit
Maximum program capacity	500KB (1280M)	500KB (1280M)	500KB (1280M)
Extended workpiece coordinate system selection (54/102 sets)	48 sets	48 sets	300 sets
Max. variable number	700 sets	700 sets	800 sets
Tool offset amount	400 sets	400 sets	999 sets
Display Unit Related Specification			
10.4 inch color display unit	X	●	●
High Speed & High Accuracy Machining Control Related Functions			
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)	●	●	●
Language Display & Graphoc Check Related Function			
Display language selection	17	17	17
3D solid program check function	●	●	●
Graphic check and graphic trace	●	●	●
Operation And Programming Support Related Functions			
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/DO 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 ϵ 845 Controller.

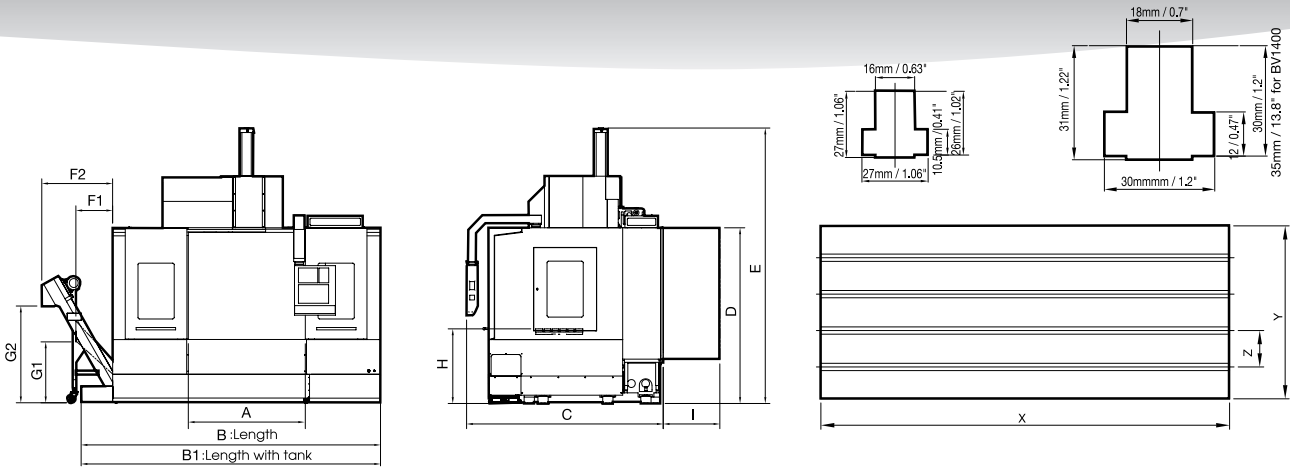
AKIRA M ϵ 845 Control High Achievement And Easy Operation For Machining Efficiency



- 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.
- 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	Floor to ele. door Height	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
JR/SR-XP Series									JR/SR-XP Series								
JRXP	700	1900	1900	1935	1770	2500	500	945		748	800	820	550	16	560	380	80
SR2XP	700	1900	1900	1935	1770	2500	500	945		748	800	820	550	16	700	380	80
SR3XP	880	2100	2100	1935	1770	2500	500	945		748	800	830	550	16	910	380	80
V-XP Series									V-XP Series								
V2XP	770	1900	1900	2200	1945	2640	500	945		750	800	790	550	18	700	400	80
V2.5XP	940	2200	2200	2200	1945	2640	500	945		750	800	790	550	18	910	400	80
SR32XP / V3XP	880	2500	2900	2240	2120	3130	560	800		755	850	895	750	18	950	480	80
SR42XP / V4XP	1260	2900	3300	2240	2120	3130	470	900		755	850	895	750	18	1200	480	80
SR52XP / V5XP	1510	3400	3800	2240	2120	3130	470	800		755	850	930	750	18	1450	480	80
SR45XP / V4.5XP	1140	3000	3400	2495	2200	3450	450	800		770	850	935	750	18	1300	600	100
SR55XP / V5.5XP	1460	3400	3800	2495	2210	3450	470	800		770	850	955	750	18	1500	600	100
V6XP	1780	4300	4300	3525	2195	3385	500	800		680	850	1020	550	18	1750	800	125
V8XP	2190	4950	4950	3525	2195	3385	500	800		680	850	1070	550	18	2150	800	125
V10XP	2740	6400	6400	3960	2115	3330	520	850		745	850	1100	550	18	2750	950	125
SV Series									SV Series								
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
HV-A Series									HV-A Series								
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

*Plase contact with your local distributor for the further information, those specs. and value based on AKIRA Mi845 Controller.

JR / SR-XP Series



Primary Selection For General

		JR XP	SR2 XP	SR3XP	SR32 XP	SR42 XP	SR52 XP	SR45 XP	SR55 XP
CONTROL SYSTEM	AKIRA M#845 (Fanuc G code compatible)								
TRAVEL		TRAVEL							
X Axis Travel	mm/inch	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	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	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	75~635 / 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	550 / 21.7	550 / 21.7	550 / 21.7	640 / 25	640 / 25
TABLE		TABLE							
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	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	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 / 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	900 / 1984	980 / 2161	1080 / 2381	1300 / 2867	1500 / 3307
SPINDLE		SPINDLE							
Max. Motor Power (Peak)	HP	12	15	15	18	18	18	18	18
Max. Speed	rpm	11,000	11,000	11,000	11,000	11,000	11,000	11,000	11,000
Spindle Taper	ISO 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40
FEED		FEED							
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	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	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
ACCURACY (VDI 3441)		ACCURACY (VDI 3441)							
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
Repeatability	mm/inch	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023
ATC		ATC							
Tool Storage Arm ATC	-	16T	20T	20T	24T	24T	24T	24T	24T
Max. Tool Diameter	mm/inch	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
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
Max. Tool Weight	kgs/lbs	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
GENERAL		GENERAL							
Tank Capacity	liter/gal	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	-	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
Power Requirement	KVA	20	20	20	30	30	30	30	30
Floor Space	mm/inch	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	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 Mi845 Controller.

V-XP Series



The Faster Road To Fine Finished

		V2 XP	V2.5 XP	V3 XP	V4 XP	V5 XP	V4.5 XP	V5.5 XP	V6 XP	V8 XP	V10 XP
CONTROL SYSTEM	AKIRA M845 (Fanuc G code compatible)										
TRAVEL						TRAVEL					
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
TABLE						TABLE					
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
SPINDLE						SPINDLE					
Max. motor power (Peak)	HP	XP = 22	XP = 22	XP = 35	XP = 35	XP = 35	XP = 35	XP = 35	XP = 35	XP = 35	XP = 35
Max. Speed	rpm	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	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)
Spindle Taper	ISO 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40
FEED						FEED					
Rapid feed X / Y / Z	M/min ipm	44 / 44 / 36	44 / 44 / 36	44 / 44 / 25	44 / 44 / 25	44 / 44 / 25	33 / 33 / 25	33 / 33 / 25	33 / 33 / 25 ₄₀	33 / 33 / 25	33 / 33 / 25
		1732 / 1732 / 1417	1732 / 1732 / 1417	1732 / 1732 / 984	1732 / 1732 / 984	1732 / 1732 / 984	1299 / 1299 / 984	1299 / 1299 / 984	1299 / 1299 / 984	1299 / 1299 / 984	1299 / 1299 / 984
Cutting feed X / Y / Z	M/min ipm	24 / 24 /24	24 / 24 /24	12 / 12 / 10	12 / 12 / 10	12 / 12 / 10	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12	12 / 12 / 12
		945 / 945 / 945	945 / 945 / 945	472 / 472 / 394	472 / 472 / 394	472 / 472 / 394	472 / 472 / 472	472 / 472 / 472	472 / 472 / 472	472 / 472 / 472	472 / 472 / 472
ACCURACY (VDI 3441)						ACCURACY (VDI 3441)					
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	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039
ATC						ATC					
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
GENERAL						GENERAL					
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	-	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 3450x 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	4180 / 9215	5700 / 12566	6600 / 14550	7400 / 16314	7810 / 17218	8110 / 17879	12300 / 27116	14500 / 31967	18130 / 39969
		4150 / 9149	4400 / 9700	6000 / 13227	6900 / 15211	7700 / 16975	8110 / 17879	8410 / 18540	12600 / 27778	14800 / 32628	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
CONTROL SYSTEM		AKIRA M ₂ 845					AKIRA M ₂ 845				
TRAVEL		TRAVEL									
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
TABLE		TABLE									
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
SPINDLE		SPINDLE									
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 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40	BT40 / CAT40 / DIN 40
Method of Spindle Chilling	-	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling
FEED		FEED									
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
ACCURACY (VDI 3441)		ACCURACY (VDI 3441)									
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	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.006 / 0.00023	0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039
ATC		ATC									
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
GENERAL		GENERAL									
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	4500 / 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 M₂845 Controller.

HV-A Series



Advance Faster BT50 Machine

		HV4.5A	HV5.5A	HV6A	HV8A	HV10A
CONTROL SYSTEM		AKIRA M ₈ 45 (Fanuc G code compatible)		AKIRA M ₈ 45 (Fanuc G code compatible)		
TRAVEL				TRAVEL		
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
TABLE				TABLE		
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
SPINDLE				SPINDLE		
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 / CAT40 / DIN50	BT50 / CAT40 / DIN50	BT50 / CAT40 / DIN50	BT50 / CAT40 / DIN50	BT50 / CAT40 / DIN50
Method of Spindle Chilling	-	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling
FEED				FEED		
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
ACCURACY (VDI 3441)				ACCURACY (VDI 3441)		
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	0.006 / 0.00023	0.006 / 0.00023	0.01 / 0.0039	0.01 / 0.0039	0.01 / 0.0039
ATC				ATC		
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
GENERAL				GENERAL		
Tank Capacity	liter/gal	350 / 92.5	400 / 105.7	640 / 169	700 / 185	900 / 237.8
Chip Disposal	-	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
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 M₈45 Controller.