



Headquater

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Multi-tasking



Auto Pallet Change



Turning Center



Tapping



Horizontal

Vertical Machining Center

VMC-MAR-2015-ENG

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

JR/SR- Performa Junior

Model JR / SR2 / SR3 / SR32 / SR42 / SR52
SR45 / SR55
JRXP / SR2XP / SR3XP / SR32XP
SR42XP / SR52XP / SR45XP / SR55XP

V



The Faster Road To Fine Finished

V-Performa Classic Xtra Performance

Model 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

SV



Ever Faster Cut Than Your expectation

SV-Super Vertical

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

HV



Advance Faster BT50 machine

HV-Superior Speed Heavy Duty

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

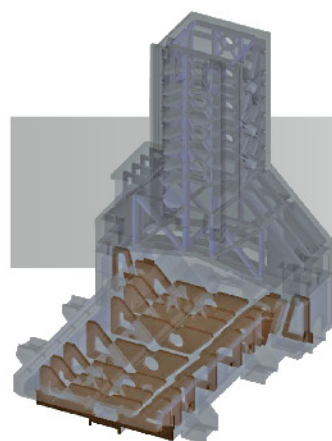
Structure

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



Meehanite high quality casting iron

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

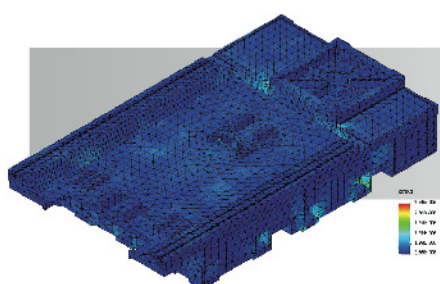
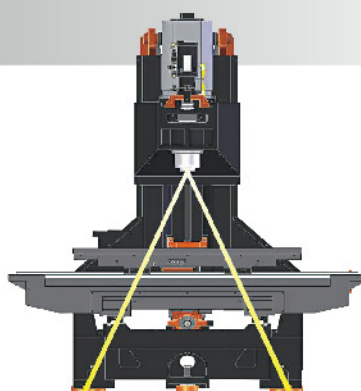


Reinforced Frame Construction

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

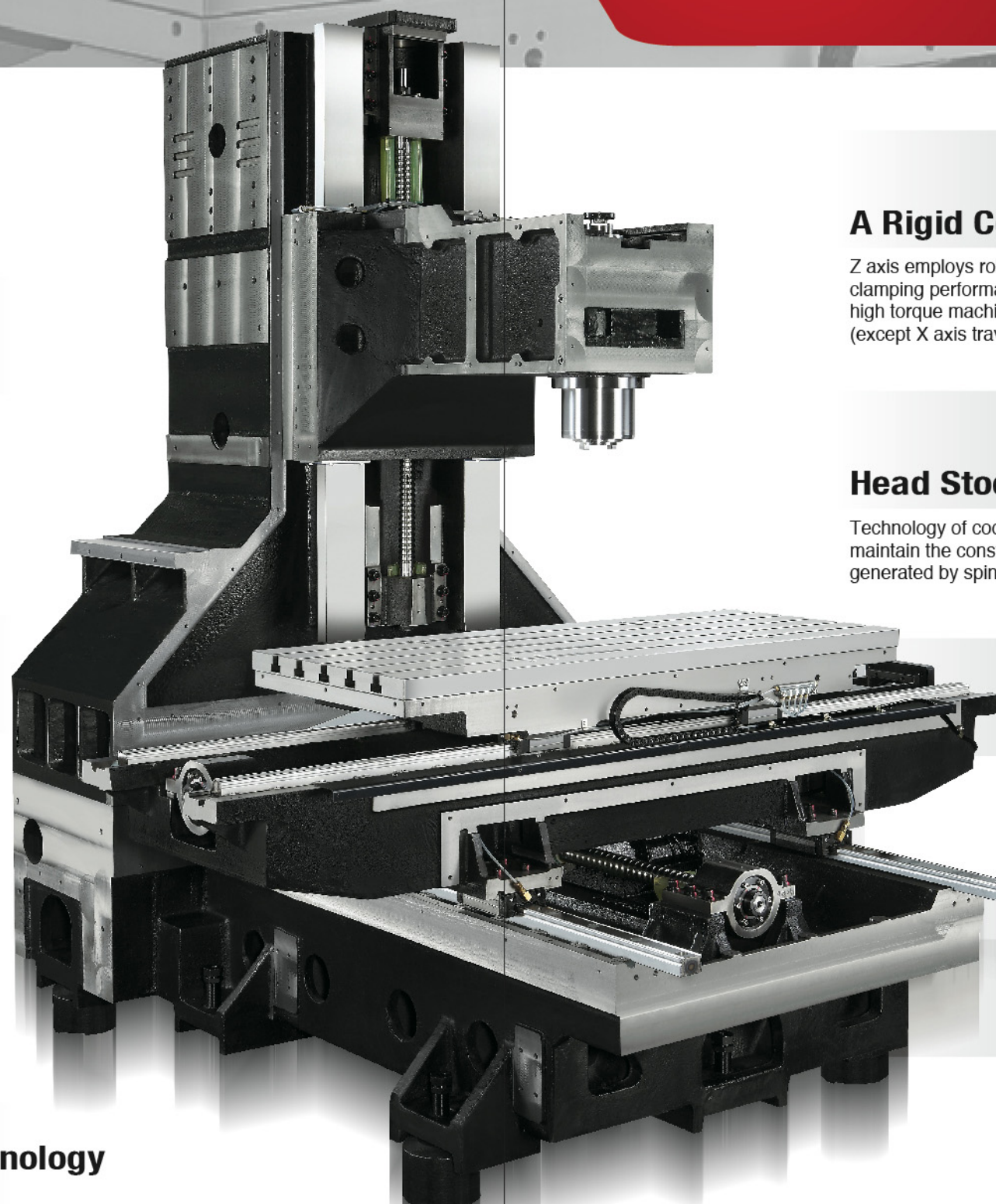
Golden Triangular Frame

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



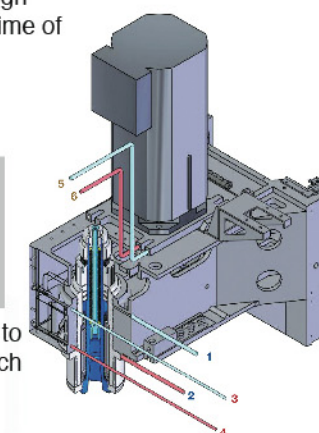
Scientific Technology Support

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



A Rigid Colum

Z axis employs robust slide way to ensures high rigidity and high clamping performance to absorb cutting reaction force at the time of high torque machining.
(except X axis travel under 760mm model)



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.

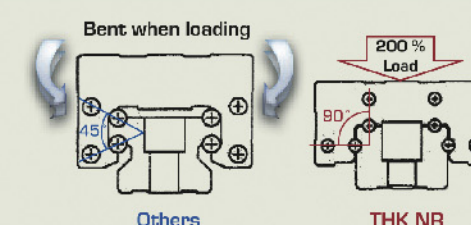
Double Anchored Ballscrew

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



THK NR LMG

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.



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

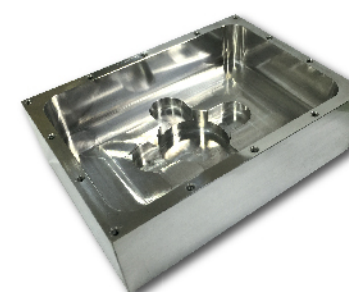
Spindle Feature

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



Cutting Application

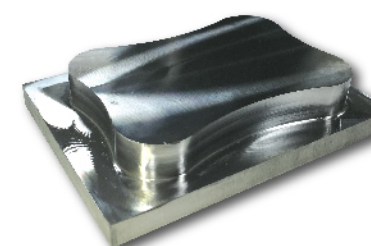
Soft Material



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(ASTM)
Face Mill Cutter : 50 mm
Spindle Speed : 4,000rpm
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

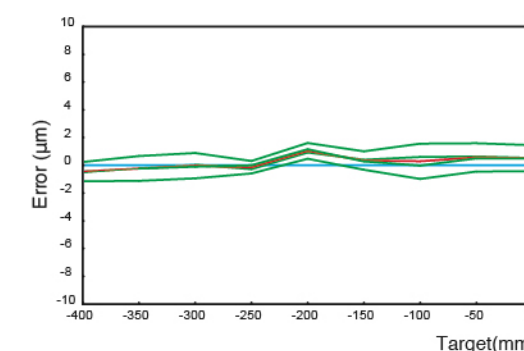
Laser

VDI 3441 – linear
Machine: V2.5XP

Axis: Y

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

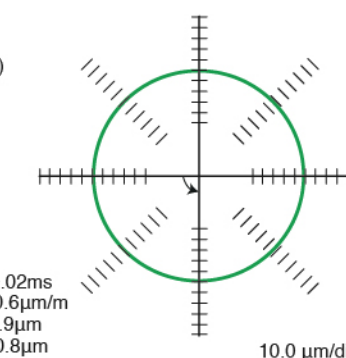
Reversal error, U ma: 0.620
Position accuracy, P: 2.761
Position error, Pa: 1.500



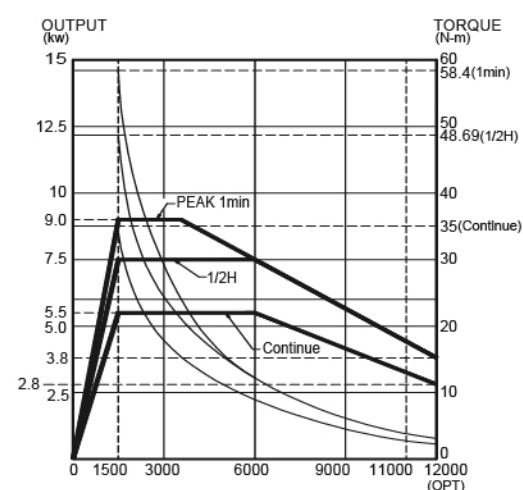
Ball Bar

Dynamic Ballbar
Machine: V2.5XP

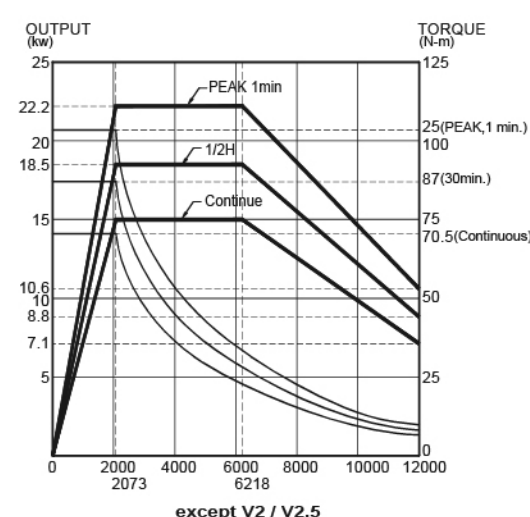
Backlash (μm)
X 0.0 0.3
Y 0.7 0.1
Reversal Spikes (μm)
X 1.7 2.3
Y 0.9 1.3
Lateral Play (μm)
X 0.1 0.0
Y 0.5 -0.4
Cyclic Error (μm)
X 0.4 0.3
Y 0.6 0.6
Other Feature
Servo mismatch 0.02ms
Squarness -0.6μm/m
Straightness X 1.9μm
Straightness Y -0.8μm
Scaling mismatch -2.0μm
Circularity 4.1μm



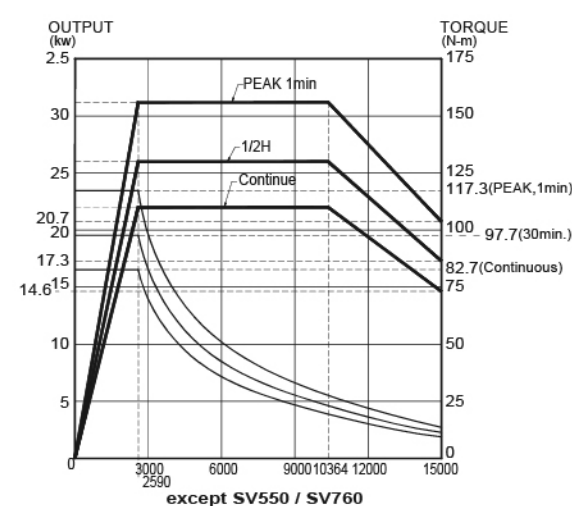
JR/SR series



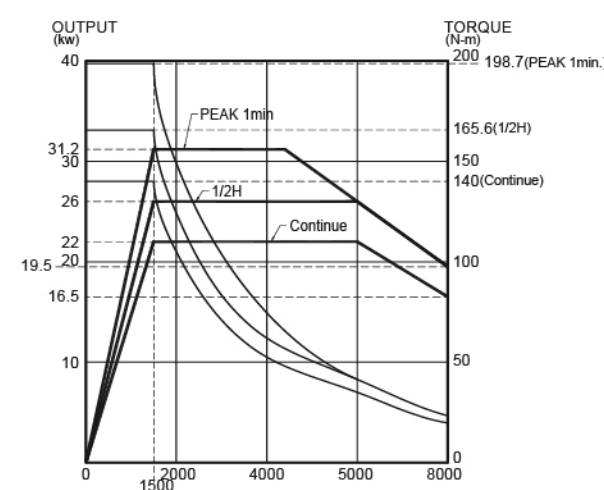
V series



SV series



HV series



Akira Mi745 Control

Akira Mi745 coordinate the CNC digital and world leader drives system. High-resolution servo stabilize precise axis positioning for high complex and accuracy jobs.

Akira Mi745 Control High Achievement And Easy Operation For Machining Efficiency

	JR/SR	V/HV	SV
CPU Processor / Base Specification			
RISC CPU processor	RISC 64 bit	RISC 64 bit	RISC 64 bit
Maximum program capacity	500KB [1280M]	500KB [1280M]	2000KB [5120M]
Extended workpiece coordinate system selection (54/102 sets)	48 sets	48 sets	48 sets
Max. variable number	700 sets	700 sets	700 sets
Tool offset amount	400 sets	400 sets	400 sets
Display Unit Related Specification			
8.4 inch color display unit	●	X	X
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)	●	●	●
HPS (high speed program server)(CF card interface built-in on NC unit)	●	●	●
Backlash compensation	●	●	●
Ballscrew thermal expansion compensation (hardware needed)	●	●	●
Language Display & Graphic 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	●	●	●
Program display value or manual interrupt value changeover	●	●	●
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	●	●	●

- 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



tool offset



selecting tool



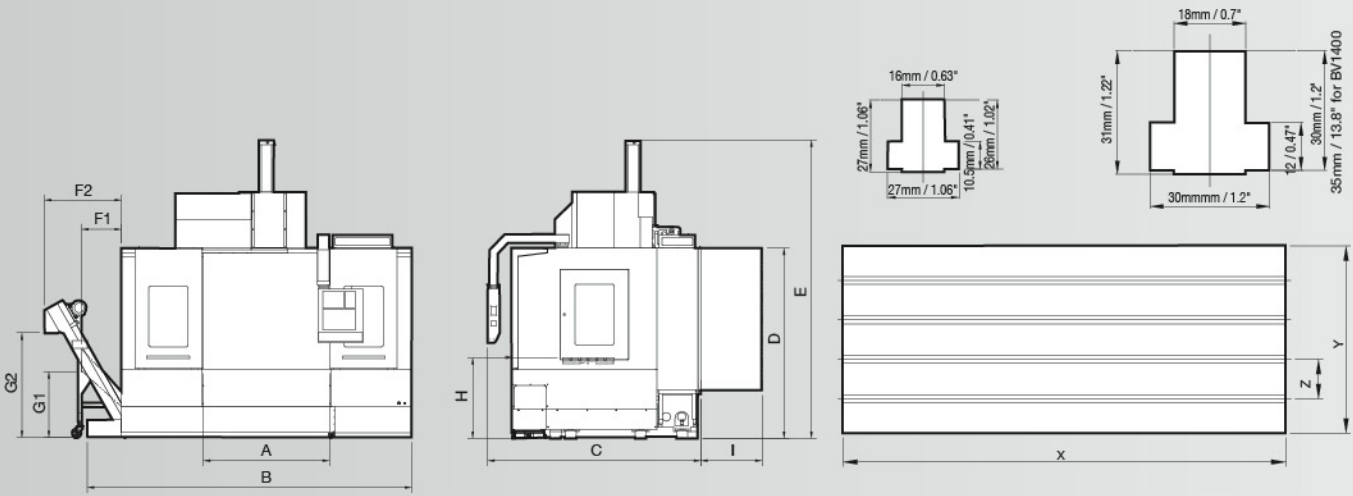
ATC home



ATC restore



Foundation



Unit(mm)

	Door Open	Length	Width	Ele Door Open	Max Height	Chip Screw Length	Chip Conveyor Length
	A	B	C	D	E	F1	F2
JR/SR Series							
JR	700	1900	1935	1770	2500	496	945
SR2	700	1900	1935	1770	2500	496	945
SR3	700	2100	1935	1770	2500	496	945
V series							
V2 / V2XP	680	1900	2200	1945	2630	496	945
V2.5 / V2.5XP	810	2200	2200	1945	2630	496	945
V3 / V3XP	980	2900	2280	2120	3130	366	900
V4 / V4XP	1260	3300	2280	2120	3130	366	900
V5 / V5XP	1530	3800	2280	2120	3130	366	900
V4.5 / V4.5XP	1350	3400	2495	2200	3450	466	900
V5.5 / V4.5XP	1550	3800	2495	2200	3450	466	900
V6 / V6XP	1800	4300	3580	2130	3320	520	850
V8 / V8XP	2200	5300	3580	2130	3320	520	850
V10 / V10XP	2830	6720	3960	2115	3320	520	850
SV Seires							
SV550	680	1900	2200	1945	2630	—	945
SV760	810	2200	2200	1945	2630	—	945
SV815	980	2900	2280	2120	3130	—	900
SV1050	1260	3300	2280	2120	3130	—	900
SV1300	1530	3800	2280	2120	3130	—	900
SV1150	1350	3400	2495	2200	3450	—	900
SV1350	1550	3800	2495	2200	3450	—	900
SV1630	1800	4300	3580	2130	3320	—	850
SV2060	2200	5300	3580	2130	3320	—	850
SV2600	2830	6720	3960	2115	3320	—	850
HV series							
HV4.5A	1350	3400	2495	2200	3520	466	900
HV5.5A	1550	3800	2495	2200	3520	466	900
HV6A	1800	4300	3580	2130	3320	520	850
HV8A	2200	5300	3580	2130	3320	520	850
HV10A	2830	6720	3960	2115	3320	520	850

Chip Screw Height	Chip Conveyor Height	Floor to Table	Ele Door width	T-Slot	Table length	Table Width	Table Pitch
G1	G2	H	I	T	X	Y	Z
748	1160	820	550	16	560	380	80
748	1160	820	550	16	700	380	80
748	1160	820	550	16	910	380	80
748	1160	790	550	18	700	400	80
748	1160	790	550	18	910	400	80
765	1220	905	730	18	950	480	80
765	1220	905	730	18	1200	480	80
765	1220	940	730	18	1460	480	80
770	1220	905	730	18	1300	600	100
770	1220	940	730	18	1500	600	100
745	1200	960	550	18	1750	800	125
745	1200	1000	550	18	2150	800	125
745	1200	1100	540	18	2750	950	125
—	1160	790	550	18	700	400	80
—	1160	790	550	18	910	400	80
—	1220	905	730	18	950	480	80
—	1220	905	730	18	1200	480	80
—	1220	940	730	18	1460	480	80
—	1220	905	730	18	1300	600	100
—	1220	940	730	18	1500	600	100
—	1200	960	550	18	1750	800	125
—	1200	1000	550	18	2150	800	125
—	1200	1100	540	18	2750	950	125
770	1220	905	730	18	1300	600	100
770	1220	940	730	18	1500	600	100
745	1200	960	550	18	1750	800	125
745	1200	1000	550	18	2150	800	125
745	1200	1100	540	18	2750	950	125

Specification



Primary Selection For General

JR / SR series

		Performa JR	Performa SR2	Performa SR3	Performa JR XP
CONTROL SYSTEM		AKIRA Mi645 (Fanuc code compatible)			
TRAVEL					
X Axis Travel	mm/inch	410 / 16.1	550 / 21.7	762 / 30	410 / 16.1
Y Axis Travel	mm/inch	410 / 16.1	410 / 16.1	410 / 16.1	410 / 16.1
Z Axis Travel	mm/inch	460 / 18.1	460 / 18.1	460 / 18.1	460 / 18.1
Spindle nose to table surface	mm/inch	75-535 / 3 - 21	75-535 / 3 - 21	75-535 / 3 - 21	75-535 / 3 - 21
Spindle center to column cover	mm/inch	435 / 17	435 / 17	435 / 17	435 / 17
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	560 x 380 / 22 x 15
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
Max. Loading	kgs/lbs	600/ 1322	800 / 1764	1100 / 2425	600 / 1322
Standard Loading	kgs/lbs	360 / 793.7	480 / 1058	660 / 1455	360 / 793.7
SPINDLE					
Max. Motor Power (Peak)	HP	12	15	15	12
Max. Speed	rpm	9,000	9,000	9,000	11,000
Spindle Taper	ISO 40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
FEED					
Rapid feed X / Y / Z	M/min ipm	30 / 30 / 24 1161 / 1181 / 945	30 / 30 / 24 1161 / 1181 / 945	30 / 30 / 24 1161 / 1181 / 945	36 / 36 / 30 1417 / 1417 / 1181
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
ACCURACY					
Positioning	mm/inch	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
ATC					
Tool Storage "C" model - carousel ATC "A" model - arm ATC		C-12T A-16T	C-12T A-16T	C-16T A-20T	C-12T A-16T
Max. Tool Diameter	mm/inch	100 / 3.9 75 / 3	100 / 3.9 75 / 3	100 / 3.9 75 / 3	100 / 3.9 75 / 3
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
Tool to Tool Time(60hz) for "A" type	sec.	2.2	2.2	2.2	2.2
GENERAL					
Tank Capacity	liter/gal	150 / 33	150 / 33	150 / 33	150 / 33
Chip Disposal		Drawer	Drawer	Drawer	Chip Screw
Air Pressure Requirement	kgs/lbs (per cm2)	7/15	7/15	7/15	7/15
Power Requirement	KVA	16	20	25	16
Floor Space	mm/inch	1900 x 1935 / 75 x 76	1900 x 1935 / 75 x 76	2100 x 1935 / 83 x 76	2396 x 1935 / 94 x 76
Weight	kgs/lbs	2850 / 6283	3250 / 7165	3480 / 7672	3202 / 7059

Performa SR2 XP	Performa SR3 XP	Performa SR32 XP	Performa SR42 XP	Performa SR52 XP	Performa SR45 XP	Performa SR55 XP
AKIRA Mi645 (Fanuc code compatible)						
550 / 21.7	762 / 30	815 / 32.1	1050 / 41.3	1300 / 51.2	1150 / 45.3	1350 / 53
410 / 16.1	410 / 16.1	540 / 21.3	540 / 19.8	540 / 21.3	640 / 25	640 / 25
460 / 18.1	460 / 18.1	560 / 22	560 / 22	560 / 22	660 / 26	660 / 26
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
435 / 17	435 / 17	550 / 21.7	550 / 21.7	550 / 21.7	640 / 25	640 / 25
700 x 380 / 28 x 15	910 x 380 / 22 x 15	950 x 480 / 37.4 x 19	950 x 480 / 37.4 x 19	1450 x 480 / 57 x 19	1300 x 600 / 51.1 x 23.6	1500 x 600 / 59 x 23.6
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 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 x 5 slots
800 / 1764	1100 / 2425	1200 / 2646	1300 / 2867	1400 / 3087	2000 / 4409	2300 / 5071
480 / 1058	660 / 1455	900 / 1984	980 / 2161	1080 / 2381	1300 / 2867	1500 / 3307
15	15	15	15	15	15	15
11,000	11,000	10,000	10,000	10,000	10,000	10,000
BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
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
12 / 12 / 10 472 / 472 / 394	12 / 12 / 10 472 / 472 / 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
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
± 0.003 / ± 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
C-12T A-16T	C-16T A-20T	A-24T	A-24T	A-24T	A-24T	A-24T
100 / 3.9 75 / 3	100 / 3.9 75 / 3	80 / 3.2	80 / 3.2	80 / 3.2	80 / 3.2	80 / 3.2
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
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
7/15	7/15	7/15	7/15	7/15	7/15	7/15
2.2	2.2	2.2	2.2	2.2	2.2	2.2
150 / 33	150 / 33	150 / 77	150 / 77	150 / 77	150 / 77	150 / 77
Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw	Chip Screw
7/15	7/15	7/15	7/15	7/15	7/15	7/15
20	25	25	25	25	25	25
2396 x 1935 / 94 x 76	2596 x 1935 / 102 x 76	2900x 2280/ 114x 90	3300x 2280/ 130x 90	3800x 2280/ 150x 90	3400 x 2495/ 134x 98	3800 x 2495 / 150 x 98
3420 / 7539	3650 / 8046	4900 / 10805	5800 / 12790	6600 / 14553	7810 / 17218	81100 / 17879

Specification



The Faster Road To Fine Finished

V series

		Performa V2 V2 XP	Performa V2.5 V2.5 XP	Performa V3 V3 XP	Performa V4 V4 XP
CONTROL SYSTEM					
AKIRA Mi645 (Fanuc code compatible)					
TRAVEL					
X Axis Travel	mm/inch	550 / 21.7	760 / 30	815 / 32.1	1050 / 41.3
Y Axis Travel	mm/inch	435 / 17	435 / 17	540 / 21.3	540 / 19.8
Z Axis Travel	mm/inch	520 / 20.5	520 / 20.5	560 / 22	560 / 22
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
Spindle center to column cover	mm/inch	460 / 18	460 / 18	550 / 21.7	550 / 21.7
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	950 x 480 / 37.4 x 19
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
Max. Loading	kgs/lbs	800 / 1764	1000 / 2205	1200 / 2646	1300 / 2866
Standard Loading	kgs/lbs	600 / 1323	800 / 1764	900 / 1984	980 / 2160
SPINDLE					
Max. Motor Power (Peak)	HP	V = 20 / XP = 25	V = 20 / XP = 25	V = 30 / XP = 36	V = 30 / XP = 36
Max. Speed	rpm	9,000 / 12,000	9,000 / 12,000	9,000 / 12,000	9,000 / 12,000
Spindle Taper	ISO 40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
FEED					
Rapid feed X / Y / Z	M/min ipm	40 / 40 / 30 1574 / 1574 / 1181 44 / 44 / 36 1732 / 1732 / 1417	40 / 40 / 30 1574 / 1574 / 1181 44 / 44 / 36 1732 / 1732 / 1417	40 / 40 / 25 1574 / 1574 / 984 44 / 44 / 25 1732 / 1732 / 984	40 / 40 / 25 1574 / 1574 / 984 44 / 44 / 25 1732 / 1732 / 984
Cutting feed X / Y / Z	M/min ipm	18 / 18 / 18 709 / 709 / 709 12 / 12 / 12 472 / 472 / 472	18 / 18 / 18 709 / 709 / 709 12 / 12 / 12 472 / 472 / 472	10 / 10 / 10 394 / 394 / 394 12 / 12 / 10 472 / 472 / 394	10 / 10 / 10 394 / 394 / 394 12 / 12 / 10 472 / 472 / 394
ACCURACY					
Positioning	mm/inch	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
ATC					
Tool Storage *C" model - carousel ATC / "A" model - arm ATC		C-20T A-28T	C-20T A-28T	C-20T A-28T	C-20T A-28T
Max. Tool Diameter	mm/inch	80 / 3.15 65 / 2.6	80 / 3.15 65 / 2.6	90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6
Max. Tool Diameter (without neighbor tool)	mm/inch	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 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
Max. Tool Weight	kgs/lbs	7/15	7/15	7/15	7/15
Tool to Tool Time(60hz) for "A" type	sec.	2.2	2.2	2.2	2.2
GENERAL					
Tank Capacity	liter/gal	250 / 66	250 / 66	350 / 92.5	350 / 92.5
Chip Disposal		Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw
Air Pressure Requirement	kgs/lbs (per cm2)	7/15	7/15	7/15	7/15
Power Requirement	KVA	20	20	30	30
Floor Space	mm/inch	1900 x 2200 / 75 x 87 2396 x 2200 / 94.3 x 87	2200 x 2200 / 87 x 87 2696 x 2200 / 1067 x 87	2900 x 2238 / 114 x 88 3066 x 2238 / 120.7 x 88	3300 x 2238 / 130 x 88 3366 x 2238 / 132.5 x 88
Weight	kgs/lbs	3930 / 8664 4150 / 9149	4180 / 9215 4400 / 9700	5700 / 12566 6000 / 13227	6600 / 14550 6900 / 15211

Performa V5 V5 XP	Performa V4.5 V4.5 XP	Performa V5.5 V5.5 XP	Performa V6 V6 XP	Performa V8 V8 XP	Performa V10 V10 XP
AKIRA Mi645 (Fanuc code compatible)					
1300 / 51.2	1150 / 45.3	1350 / 53	1630 / 64.2	2060 / 81.1	2600 / 102.3
540 / 21.3	640 / 25	640 / 25	850 / 33.5	850 / 33.5	1030 / 40.6
560 / 22	660 / 26	660 / 26	815 / 32	815 / 32	815 / 32
75-635 / 3-25	100-760 / 4-30	100-760 / 4-30	100-915 / 4-36	100-915 / 4-36	100-915 / 4-36
550 / 21.7	640 / 25	640 / 25	865 / 34	865 / 34	1050 / 41.3
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
18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 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
1400 / 3086	2000 / 4409	2300 / 5071	3000 / 6614	4000 / 8818	3100 / 6834
1080 / 2381	1300 / 2866	1500 / 3307	2300 / 5071	2700 / 5952	2400 / 5291
V = 30 / XP = 36	V = 30 / XP = 36	V = 30 / XP = 36	V = 30 / XP = 36	V = 30 / XP = 36	V = 30 / XP = 36
9,000 / 12,000	9,000 / 12,000	9,000 / 12,000	9,000 / 12,000	9,000 / 12,000	9,000 / 12,000
BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
40 / 40 / 25 1574 / 1574 / 984 44 / 44 / 25 1732 / 1732 / 984	30 / 30 / 25 1181 / 1181 / 984 33 / 33 / 25 1299 / 1299 / 984	30 / 30 / 25 1181 / 1181 / 984 33 / 33 / 25 1299 / 1299 / 984	30 / 30 / 25 1181 / 1181 / 984 33 / 33 / 25 1299 / 1299 / 984	30 / 30 / 25 1181 / 1181 / 984 33 / 33 / 25 1299 / 1299 / 984	30 / 30 / 25 1181 / 1181 / 984 33 / 33 / 25 1299 / 1299 / 984
10 / 10 / 10 394 / 394 / 394 12 / 12 / 10 472 / 472 / 394	10 / 10 / 10 394 / 394 / 394 12 / 12 / 12 472 / 472 / 472	10 / 10 / 10 394 / 394 / 394 12 / 12 / 12 472 / 472 / 472	10 / 10 / 10 394 / 394 / 394 12 / 12 / 12 472 / 472 / 472	10 / 10 / 10 394 / 394 / 394 12 / 12 / 12 472 / 472 / 472	10 / 10 / 10 394 / 394 / 394 12 / 12 / 12 472 / 472 / 472
0.01/0.00039	0.01/0.00039	0.01/0.00039	0.015/0.00059	0.015/0.00059	0.015/0.00059
± 0.003 / ± 0.00012	± 0.003 / ± 0.00012	± 0.003 / ± 0.00012	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020
C-20T A-28T	C-20T A-28T	C-20T A-28T	C-20T A-28T	C-20T A-28T	C-20T A-28T
90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6	90 / 3.5 65 / 2.6
160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1	160 / 6.3 130 / 5.1
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 / 9.8 250 / 9.8
7/15	7/15	7/15	7/15	7/15	7/15
2.2	2.2	2.2	2.2	2.2	2.2
400 / 105.7	350 / 92.5	400 / 105.7	640 / 169	700 / 185	900 / 237.8
Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw	Drawer Chip Screw
7/15	7/15	7/15	7/15	7/15	7/15
30	30	30	30	30	30
3700 x 2238 / 145.6 x 88 3816 x 2238 / 150.2 x 88	3400 x 2495 / 134 x 98 3466 x 2495 / 136 x 98	3800 x 2500 / 150 x 98 3866 x 2500 / 152 x 98	4300 x 3576 / 169 x 140 4820 x 3576 / 190 x 140	5150 x 3576 / 202 x 140 5670 x 3576 / 223 x 140	6200 x 3959 / 244 x 156 6720 x 3959 / 265 x 156
7400 / 16314 7700 / 16975	7810 / 17218 8110 / 17879	8110 / 17879 8410 / 18540	12300 / 27116 12600 / 27778	14500 / 31967 14800 / 32628	18130 / 39969 18230 / 40190

Specification



Ever Faster Cut Than Your expectation

SV series

		SV550	SV760	SV815	SV1050
CONTROL SYSTEM					
AKIRA Mi645					
TRAVEL					
X Axis Travel	mm/inch	550 / 21.7	760 / 30	815 / 32	1050 / 41.3
Y Axis Travel	mm/inch	435 / 17	435 / 17	540 / 21.3	540 / 19.8
Z Axis Travel	mm/inch	520 / 20.5	520 / 20.5	560 / 22	560 / 22
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
Spindle center to column cover	mm/inch	460 / 18	460 / 18	550 / 21.7	550 / 21.7
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	950 x 480 / 37.4 x 19
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
Max. Loading	kgs/lbs	800 / 1764	1000 / 2205	1200 / 2646	1300 / 2866
Standard Loading	kgs/lbs	600 / 1323	800 / 1764	900 / 1984	980 / 2160
SPINDLE					
Max. Motor Power (Peak)	HP	20	20	42	42
Max. Speed	rpm	15,000	15,000	15,000	15,000
Spindle Taper	ISO 40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
Method of Spindle Chilling		Oil chilling	Oil chilling	Oil chilling	Oil chilling
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
Cutting feed X / Y / Z	M/min ipm	12 / 12 / 12 472 / 472 / 472	12 / 12 / 12 472 / 472 / 472	12 / 12 / 12 472 / 472 / 472	12 / 12 / 12 472 / 472 / 472
ACCURACY					
Positioning	mm/inch	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
ATC					
Tool Storage arm ATC		28T	28T	36T	36T
Max. Tool Diameter	mm/inch	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
Max. Tool Length	mm/inch	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8
Max. Tool Weight	kgs/lbs	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4
Tool to Tool Time(60hz) for "A" type	sec.	1.9	1.9	1.9	1.9
GENERAL					
Tank Capacity	liter/gal	250 / 66	250 / 66	350 / 92.5	350 / 92.5
Chip Disposal		Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor
Air Pressure Requirement	kgs/lbs (per cm2)	7/15	7/15	7/15	7/15
Power Requirement	KVA	20	20	35	35
Floor Space	mm/inch	2845 x 2200 / 112 x 87	3145 x 2200 / 124 x 87	3400 x 2238 / 134 x 88	3800 x 2238 / 150 x 88
Weight	kgs/lbs	4250 / 9370	4500 / 9920	6280 / 13845	7180 / 15829

SV1300	SV1150	SV1350	SV1630	SV2060	SV2600
AKIRA Mi645					
1300 / 51.2	1150 / 45	1350 / 53	1630 / 64	2060 / 81	2600 / 102.3
540 / 21.3	640 / 25	640 / 25	850 / 33.5	850 / 33.5	1030 / 40.6
560 / 22	660 / 26	660 / 26	815 / 32	815 / 32	815 / 32
75-635 / 3-25	100-760 / 4-30	100-760 / 4-30	100-915 / 4-36	100-915 / 4-36	100-915 / 4-36
550 / 21.7	640 / 25	640 / 25	865 / 34	865 / 34	1050 / 41.3
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
18 x 80 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 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
1400 / 3086	2000 / 4409	2300 / 5071	3000 / 6614	4000 / 8818	3100 / 6834
1080 / 2381	1300 / 2866	1500 / 3307	2300 / 5071	2700 / 5952	2400 / 5291
42	42	42	42	42	42
15,000	15,000	15,000	15,000	15,000	15,000
BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40	BT40 / CAT40
Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling	Oil chilling
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
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	12 / 12 / 12 472 / 472 / 472
0.01 / 0.00039	0.01 / 0.00039	0.01 / 0.00039	0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059
± 0.003 / ± 0.00012	± 0.003 / ± 0.00012	± 0.003 / ± 0.00012	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020
36T	36T	36T	36T	36T	36T
65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6	65 / 2.6
130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1	130 / 5.1
250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8	250 / 9.8
7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4	7 / 15.4
1.9	1.9	1.9	1.9	1.9	1.9
400 / 105.7	350 / 92.5	400 / 105.7	640 / 169	700 / 185	900 / 237.8
Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor	Chain type chip conveyor
7/15	7/15	7/15	7/15	7/15	7/15
35	35	35	35	35	35
4200 x 2238 / 165 x 88	3900 x 2495 / 154 x 98	4300 x 2495 / 169 x 98	5150 x 3576 / 203 x 140.7	6000 x 3576 / 236 x 140.7	7050 x 3959 / 278 x 156
7980 / 17953	8390 / 18497	8690 / 19158	13000 / 28660	15200 / 33510	19500 / 42990

Specification



Ever Faster Cut Than Your expectation

HV series

		HV4.5A	HV5.5A
CONTROL SYSTEM		AKIRA Mi645 (Fanuc code compatible)	
TRAVEL			
X Axis Travel	mm/inch	1150 / 45	1350 / 53
Y Axis Travel	mm/inch	640 / 25	640 / 25
Z Axis Travel	mm/inch	660 / 26	660 / 26
Spindle nose to table surface	mm/inch	100-760 / 4-30	100-760 / 4-30
Spindle center to column cover	mm/inch	640 / 25	640 / 25
TABLE			
Table size (L x W)	mm/inch	1300 x 600 / 51.1 x 23.6	1500 x 600 / 59 x 23.6
T slot	mm/inch	18 x 100 x 5 slots / 0.7 x 3.15 x 5 slots	18 x 100 x 5 slots / 0.7 x 3.15 x 5 slots
Max. Loading	kgs/lbs	2000 / 4409	2300 / 5071
Standard Loading	kgs/lbs	1300 / 2866	1500 / 3307
SPINDLE			
Max. Motor Power (Peak)	HP+	42	42
Max. Motor Power (30min)	HP	35	35
Max. Speed	rpm	8,000	8,000
Spindle Taper	ISO 50	BT50 / CAT50	BT50 / CAT50
Method of Spindle Chilling		Oil chilling	Oil chilling
FEED			
Rapid feed X / Y / Z	M/min ipm	36 / 36 / 30 1417 / 1417 1181	36 / 36 / 30 1417 / 1417 1181
Cutting feed X / Y / Z	M/min ipm	10 / 10 / 10 394 / 394 / 394	10 / 10 / 10 394 / 394 / 394
ACCURACY			
Positioning	mm/inch	0.01 / 0.00039	0.01 / 0.00039
Repeatability	mm/inch	± 0.003 / ± 0.00012	± 0.003 / ± 0.00012
ATC			
arm ATC		28T	28T
Max. Tool Diameter	mm/inch	102 / 4	102 / 4
Max. Tool Diameter (without neighbor tool)	mm/inch	150 / 5.9	150 / 5.9
Max. Tool Length	mm/inch	350 / 13.8	350 / 13.8
Max. Tool Weight	kgs/lbs	15 / 33	15 / 33
Tool to Tool Time(60hz)	sec.	3.5	3.5
GENERAL			
Tank Capacity	liter/gal	350 / 93	400 / 106
Chip Disposal		Drawer	Drawer
Air Pressure Requirement	kgs/lbs (per cm2)	7/15	7/15
Power Requirement	KVA	35	35
Floor Space	mm/inch	3400 x 2495 / 134 x 98	3800 x 2495 / 150 x 98
Weight	kgs/lbs	8380	8800

HV6A	HV8A	HV10A
AKIRA Mi645 (Fanuc code compatible)		
1630 / 64	2060 / 81	2600 / 102
850 / 33.5	850 / 33.5	1030 / 40.5
815 / 32	815 / 32	815 / 32
120-935 / 5-37	120-935 / 5-37	120-935 / 5-37
865 / 34	865 / 34	1050 / 41
1750 x 800 / 69 x 31.5	2150 x 800 / 84.7 x 31.5	2750 x 950 / 108.2 x 37.4
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
3000 / 6614	4000 / 8818	3100 / 6834
2300 / 5071	2700 / 5952	2400 / 5291
42	42	42
35	35	35
8,000	8,000	8,000
BT50 / CAT50	BT50 / CAT50	BT50 / CAT50
Oil chilling	Oil chilling	Oil chilling
36 / 36 / 30 1417 / 1417 1181	36 / 36 / 30 1417 / 1417 1181	30 / 30 / 25 1181 / 1181 / 984
10 / 10 / 10 394 / 394 / 394	10 / 10 / 10 394 / 394 / 394	10 / 10 / 10 394 / 394 / 394
0.015 / 0.00059	0.015 / 0.00059	0.015 / 0.00059
± 0.005 / ± 0.00020	± 0.005 / ± 0.00020	± 0.005 / ± 0.00020
28T	28T	28T
102 / 4	102 / 4	102 / 4
150 / 5.9	150 / 5.9	150 / 5.9
350 / 13.8	350 / 13.8	350 / 13.8
15 / 33	15 / 33	15 / 33
3.5	3.5	3.5
640 / 169	700 / 185	900 / 238
Drawer	Drawer	Drawer
7/15	7/15	7/15
35	35	35
4300 x 3576 / 169 x 140.7	5150 x 3576 / 202.7 x 140.7	6200 x 3959 / 244 x 156
10400	11000	19800