

SPEC SHEET - 2011 MIKINI 1610L

PRECISION LINEAR RAIL CNC MACHINING CENTER – 5 Axis capable

Overall Dimensions	59" L x 35.5" W x 66.5" H		
Machine/enclosure Weight	2000 lbs / 907 KG		
Packaged dimensions	65.5" L x 39.5" w x 72 " H – 2200 Lbs		
X axis Travel	16.75"	Worktable max load	500 lbs
Y axis Travel	9.35"	Max spindle to column	9.5"
Z axis Travel	16.5"	Max spindle to table	16.5"
Table Size	30" x 9.5"		
T Slot Dimension	5/8" slot x 1" foot		
Machine Input AC supply	220 VAC, 20 amps, Single phase (200-250VAC range)		
Spindle drive power	3 HP continuous- 5 HP peak 9 KW drive output		
Spindle drive system	Brushless Linear DC drive. 320VDC Constant linear torque. Capacitive storage Load metering. Thermally and electrically protected		
Spindle Speed	300 - 5000 RPM		
Spindle Taper	R8 Taper - P4 High Speed Bearings - > 0.0003" TIR		
Resolution (control system)	0.00004"		
Repeatability (machine)	0.0003"		
Ball screw Accuracy	Ground C3 Class (JIS 1192) on ISO/DIN P4 Bearings Zero effective backlash > 0.0001" (Component error less than 8 micron error over 300mm)		
Max Feed rate	200 IPM rapid recommended, not machine limited dependant on controller/Interface/axis drive in use		
Motion guidance (Way type)	H class linear motion guides on all linear axis (Component linear to 16 micron error over 1 meter) Single shot 15 point lubrication system		
Operational requirements	AC Power only, Floor load (as packaged) 133 lbs/ft		
Standard features	G code controlled flood cooling system. Cast iron base with storage. High stiffness fully trussed column. Spindle load metering (Instant & Avg.) Florescent machine light. Automated lubrication. Manual feed rate calculation. 2 aux CNC relays for custom applications. Instant E-stop system. Stainless steel keyboard / tooling shelf. LED signal tower light. 4 axis manual Jog control Pendant. Front panel USB (x3). 5 axis output (standard)		
Machine control system	MIKINI V2.0 featuring 4 axis Manual and CNC host operation. 4 Axis DRO with feed rate calculation and spindle load monitoring.		



control interface	Parallel standard, USB utilizing optional in Mach 3
Axis Drive Screws	20 mm Diameter 5mm Pitch CNC ground ball screws (ZBL)
Axis Drive Motors	X Y and Z axis 850 oz-in N34 frame
Axis Motion Controller	300 Watt Micro Stepping drive (X,Y,Z, thermally protected)
Casting type	High tensile 35ksi low silicon grey cast iron (Meehanite Type) Exceeds SAE G3000 standards. Aged and thermally relieved
CNC control system	Mikini V2.0 manual / CNC machine control system MACH3 PC CNC – Optional integrated industrial PC KCAM and EMC/Linux hardware support
Options	Integrated industrial CNC control PC (Shown above) Glass touch screen for CNC control PC (Shown above) USB Smooth stepper interface module 4 th axis, A axis drive and tailstock kit 3 HP 7500 – 24,000 RPM AC inductive spindle 750 W BLDC servo drives

Version 2.0 – 1610L CNC Machining Center

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Specifications may vary by machine due to customer specified configuration

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