AMADA MACHINE TOOLS AMERICA, INC.

AHB TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

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THE VISION OF PRECISION

HK Series

AMADA®

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Amada Machine Tools America

With more than 70 years of industry experience, Amada Machine Tools America is committed to helping our customers deliver dependable service and top-quality work with exceptional sawing solutions.

Whatever your sawing needs, we have the right solution for your specific application.

Market-Leading Quality—We believe quality work begins with quality tools designed and built from the ground up to deliver outstanding performance, time after time.

Customer-Driven Innovation—Every feature, function, and configuration we offer has been developed to address the needs of our customers.

Proven Accuracy—We help you take your work to the next level and exceed your customers' expectations.

Reliable Productivity—We understand productivity is the heart of your business, and we can help you optimize it in multiple ways.

A History of Cutting-Edge Manufacturing

Amada Machine Tools was founded on the manufacturing of saws back in 1946. Since that time, our goals have always been to provide our customers with increased productivity and reliability.

And, as technology has evolved, we've embraced CNC automation as a core strength, improving throughput and helping new operators become productive more quickly.

Today, we are uniquely positioned to help you expand your capabilities and grow your business.

Solutions Designed Around Customer Needs

No two customers' needs are exactly alike. Finding the right solution means thoroughly understanding your objectives and configuring a solution to match them precisely. Our engineers bring decades of industry experience to help you achieve your specified goals with a process that fits—and enhances—your workflow.

TECHNOLOGIES OF AMADA

Amada Sawing Technology

A Perfect Match with Amada Blades

Amada also offers another unique advantage in that we manufacture our own bandsaw blades. This allows you to precisely match the characteristics of the blade to the machine to achieve optimum cutting performance, no matter what material you're working with.

Because we manufacture our own blades, we're able to ensure we've got the right blades—in stock—when you need them. And we have expert engineers with years of industry experience on staff to answer any questions you might have.

Finding the Right Solution

No matter what kind of sawing capabilities you need, these machines deliver the proven quality and accuracy that have made Amada the trusted choice for productivity and reliability.

Series	Description
CTB	CNC-controlled horizontal bandsaws designed for carbide-tipped blades
DYNASAW	Dynamic, high-performance bandsaw machines
H	Highly rigid horizontal bandsaws for a wide range of cutting tasks
HA	Semi-automatic horizontal bandsaws
HFA	Fully automatic horizontal bandsaws
HK	Miter-cutting bandsaws for structural steel sections
HKB	NC bandsaws for bundled tubes, solids, and structural materials
PCSAW	Horizontal bandsaws with Amada's revolutionary pulse cutting technology
VM	Vertical bandsaws for cutting blocks and plates
CMB	Circular saws with exceptional surface finishing
SCP	Automated chip compactor

SAWING TECHNOLOGY

Saws

Throughout the steel processing world, the Amada name is known for quality and dependability. Our lineup of industry-leading saws brings a host of innovations designed to improve your productivity. From operator-friendly controls and intuitive CNC software to our patented pulse-cutting technology that offers dramatically improved cutting times while improving blade life, you can count on Amada

HK400 and HKA400
Manual/Automatic Metal-Cutting Miter Bandsaws

The HK400 and HKA400 bring mitering capability to our proven H Series designs. The HKA400 includes fully automatic operation for enhanced productivity and ease of operation. Both machines offer a host of features designed to maximize cutting performance and reliability and are ideal for cutting structural steel sections.

HK400 and HKA400

Rigid Double Post

Front Vise

Features

Saw Head Frame—The rigid "C" section frame carries the mountings for the two band wheels, heavy-duty worm gear drive reducer, band drive motor, and guide arm mounting supports.

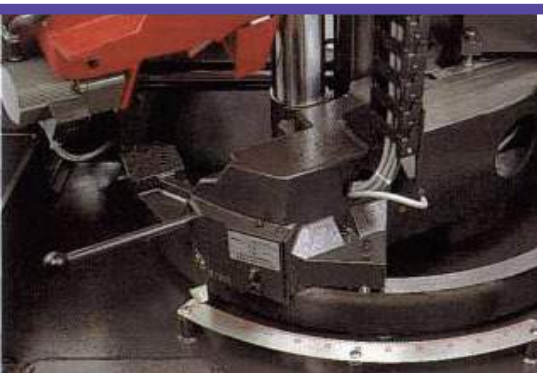
Band Wheels and Drive System—The inverter-controlled band drive motor is directly coupled to the worm gear reducer, eliminating the friction losses found in variable-speed pulley drive systems. The drive wheel transmission is designed and manufactured by Amada to provide high-efficiency speed reduction (with no external cooling required) to deliver more power to the drive wheel. Band speed is set using the band speed adjustment knob on the control panel.

Canted Head and Single-Column Mounting—The head is canted 8° to enable the machine to cut rolled sections (e.g., I-beams or rectangular tubing) at significantly faster rates as the blade is never in full contact with the horizontal section of the material. The single-column mounting enables the saw guides to be much closer together, as compared to scissor-type machines, which improves the cutting performance.

Full-Stroke Clamping Vise—The full-stroke clamping vise reduces the operator setup time for different widths of material.

Manual Vise Inching Control—The vise inching control enables the operator to more accurately locate the workpiece for the cut by inching the vise. Then, with the help of the shadow line projector, the operator can make any small adjustments necessary to the position for the desired cut.

Guarding—The saw band is covered by heavy-gauge guarding in all non-cutting areas, improving operator safety.



Up to 60º Miter

Easy Operation

NC Functions

- Automatic kerf compensation
- 1 cut-off length from the same bar
- Number of pieces required
- Number of pieces cut

STANDARD FEATURES	HK400	HKA400
8º saw head cant	•	•
60º miter capability	•	•
Auto index (only at 0º)		•
Direct drive	•	•
Full-stroke vise	•	•
Inverter blade speed control	•	•
Light beam marking	•	•
Post-construction saw head	•	•

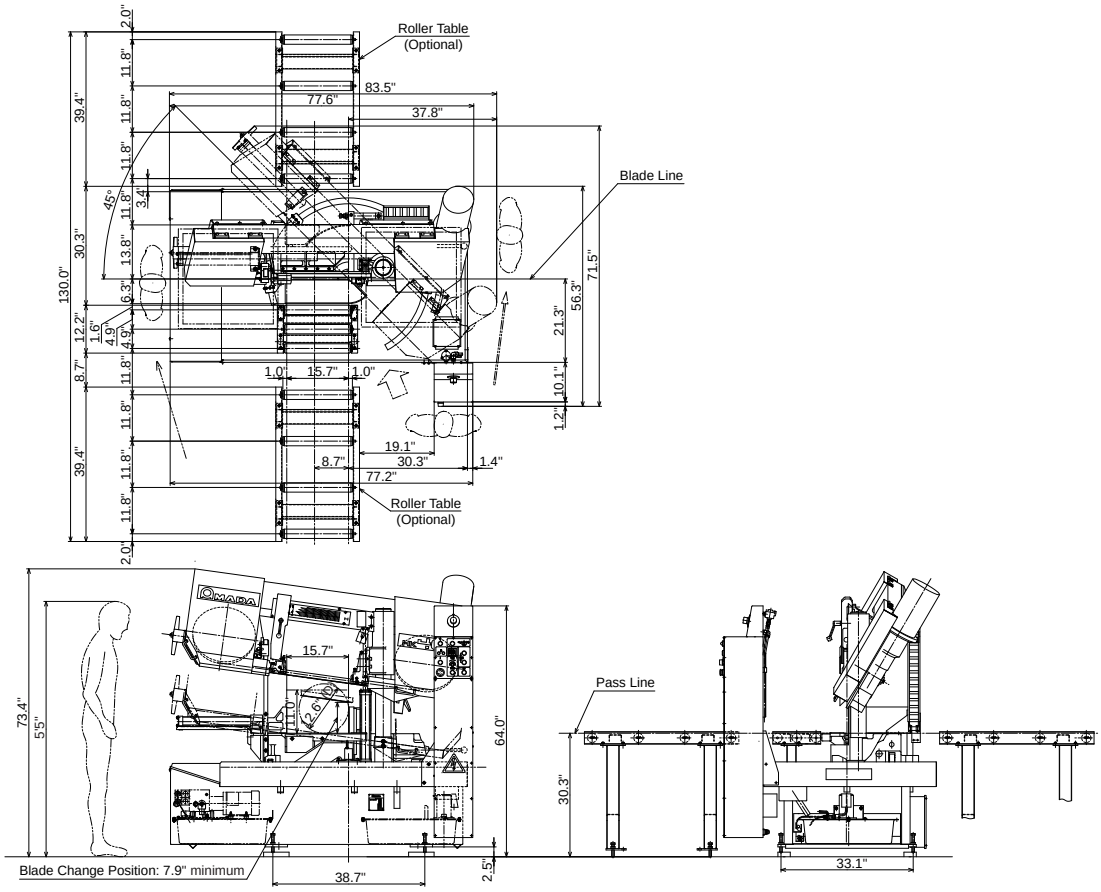
OPTIONAL ACCESSORIES	HK400	HKA400
Roller table 6.5' (2 m)	•	•
Roller table 10' (3 m)	•	•
Vertical clamp (must be factory ordered)	•	•

HK400 and HKA400

HK400 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	12.6" (at 90°)	320 mm (at 90°)
			8.9" (at 45°)	220 mm (at 45°)
			3.9" (at 60°)	100 mm (at 60°)
		Rectangle (W x H)	16" x 11" (at 90°)	400 x 280 mm (at 90°)
			8.9" x 11" (at 45°)	220 x 280 mm (at 45°)
			3.9" x 11" (at 60°)	100 x 280 mm (at 60°)
	Work load capacity		880 lb	400 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	12'9" x 0.042" x 1.25"	3885 x 1.066 x 32 mm
		Blade speed	100~325 ft/min, by inverter	30~100 m/min, by inverter
		Tension control	Manual, split clutch	
	Blade control	Top limit setting	Manual setting dial	
		Cutting control	Hydraulic flow control valve	
	Vise operation	Type	Single vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	3 HP	2.2 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/10 HP	0.06 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	5.5 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	10.7 gal	40 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	10.7 gal	40 liters
		Pressure setting	391 psi	2.7 MPa (27 kgf/cm^2)
CHIP DISPOSAL	Manual			
MATERIAL INDEX	Index mechanism		N/A	
	Stroke		N/A	
	Length		N/A	
	Number of input stations		N/A	
	Number of cut-off pieces		N/A	
	Remnant length		N/A	
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	77.6" x 56.3" x 73.4"	1970 x 1430 x 1865 mm
		Head down position	77.6" x 56.3" x 64.0"	1970 x 1430 x 1625 mm
	Table height (above floor)		30.3"	770 mm
	Machine weight		1990 lb	900 kg

Floor Layout



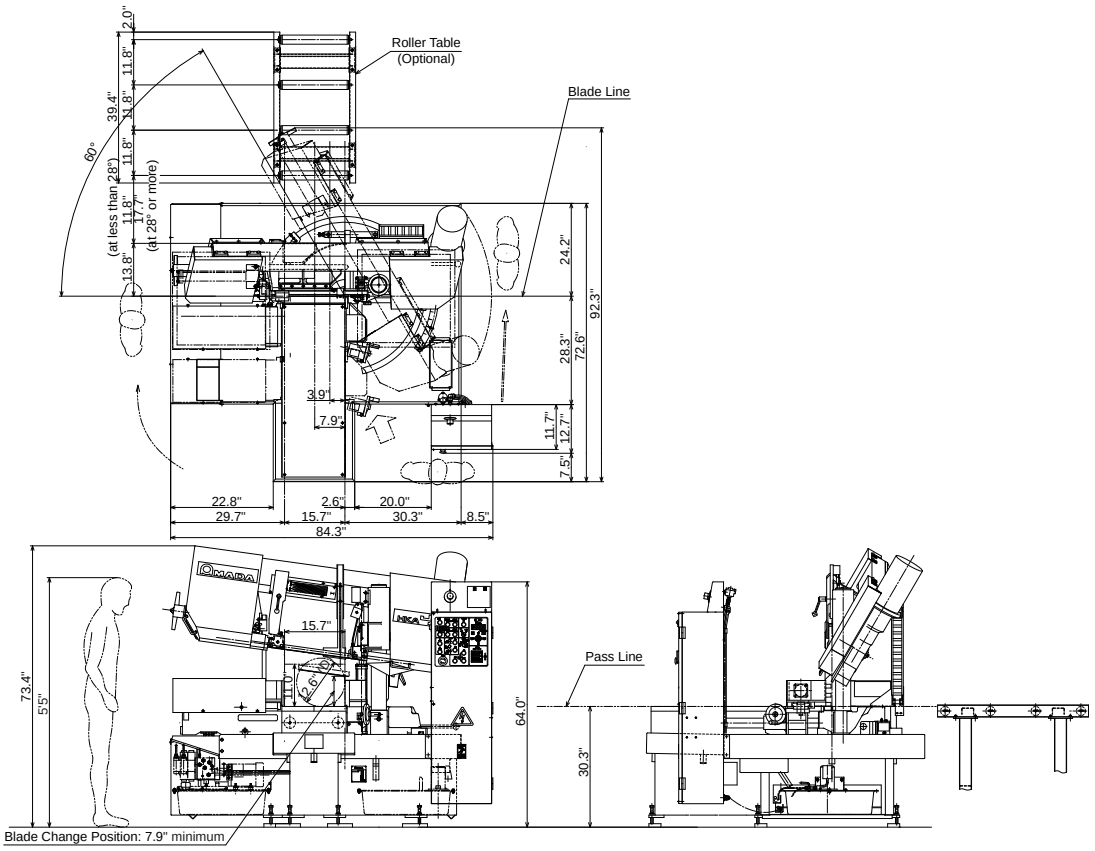
* Specifications may change without notice at the sole discretion of Amada's Engineering Department.

HK400 and HKA400

HKA400 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	12.6" (at 90°)	320 mm (at 90°)
			8.9" (at 45°)	200 mm (at 45°)
			3.9" (at 60°)	100 mm (at 45°)
		Rectangle (W x H)	16" x 11" (at 90°)	400 x 280 mm (at 90°)
			8.9" x 11" (at 45°)	220 x 280 mm (at 45°)
			3.9" x 11" (at 60°)	100 x 280 mm (at 60°)
	Work load capacity		880 lb	400 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	12'9" x 0.042" x 1.25"	3885 x 1.066 x 32 mm
		Blade speed	100~325 ft/min, by inverter	30~100 m/min, by inverter
		Tension control	Manual, split clutch	
	Blade control	Top limit setting	Automatic setting with quick approach feeler	
		Cutting control	Hydraulic flow control valve	
	Vise operation	Type	Front and main vise	
		Control	Hydraulic full-stroke cylinder	
MOTORS	Saw blade motor	3 HP	2.2 kW	
	Hydraulic pump motor	1 HP	0.75 kW	
	Cutting fluid pump motor	1/10 HP	0.06 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	10.7 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	10.7 gal	40 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	10.7 gal	40 liters
		Pressure setting	391 psi	2.7 MPa (27 kgf/cm^2)
CHIP DISPOSAL	Manual			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		15.7"	400 mm
	Length		2.4"~39.3"	60~999.9 mm
	Number of input stations		1	
	Number of cut-off pieces		1~9999	
	Remnant length		2.8" plus length of parts	70 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	84.3" x 92.3" x 73.4"	2140 x 2345 x 1865 mm
		Head down position	84.3" x 92.3" x 64.0"	2140 x 2345 x 1625.5 mm
	Table height (above floor)		30.3"	770 mm
	Machine weight		3528 lbs.	1600 kg

Floor Layout



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HKB6050CNC
Horizontal CNC-Controlled Automatic Metal Cutting Bandsaw

The HKB6050CNC is engineered to deliver outstanding productivity and accuracy when cutting bundles of tubes, solids, and structural materials. The full-capacity bundle vises clamp on both sides and the top of the material for maximum stability and precision.

Full-Capacity Bundle Vises

Front Pulling Vise

Features

CNC Control

- 30 blocks, 10 stations per block
- Self-diagnostic error codes
- Feeds and speeds selectable by material type

Rear Indexing Vise

- 78" single-stroke indexing
- Single-direction index on short pieces
- Constant clamping maintains bundle configuration

Front Pulling Vise

- 23" single stroke
- Minimal remnants
- Clamping on both sides of the blade

Spray Mist Coolant (optional)

- Cleaner work place
- Cleaner cut pieces
- Eliminates improper mixing ratios

Other Features

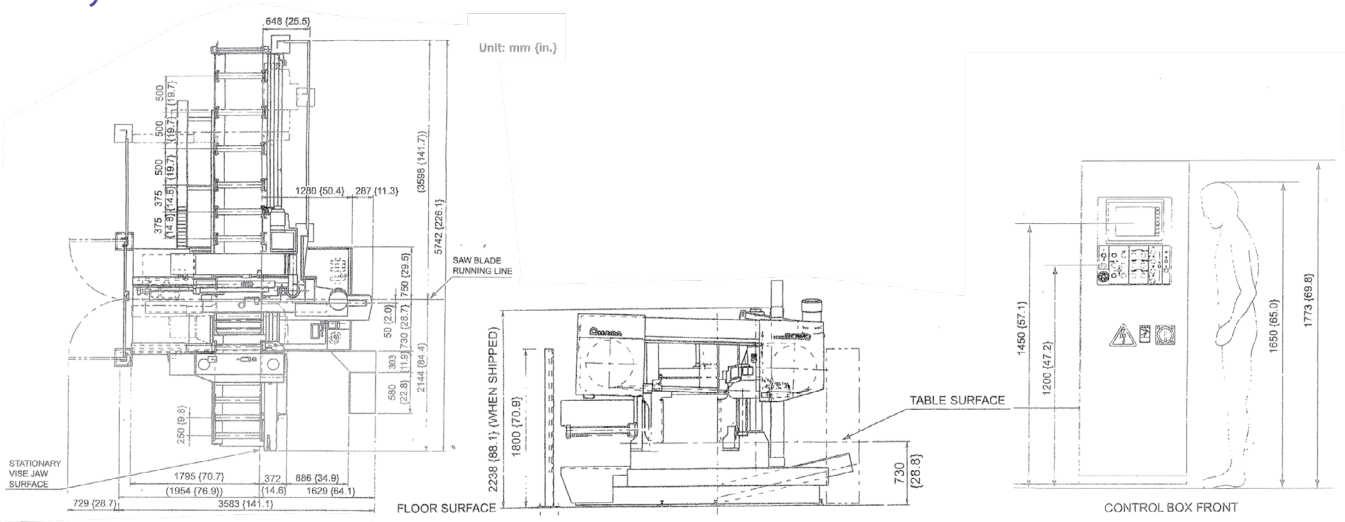
- Automatic blade guide setting
- Operator-friendly touchscreen
- Blade deviation monitor

HKB6050CNC

HKB6050CNC Machine Specifications

CAPACITY	Cutting capacity	Round (diameter) Rectangle (W x H)	1"~20" 1" x 1"~24" x 20"	25 mm~500 mm 25 x 25 mm~600 x 500 mm
	Work load capacity	9923 lb	4500 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	19'4" x 0.05" x 2"	5890 x 1.3 x 54 mm
		Blade speed	49~325 ft/min, by inverter	15~100 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	CNC control, hydraulic flow control valve with stepping motor	
MOTORS	Saw blade motor	7.5 HP	5.5 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz		
	Power requirement	11 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	38.3 gal	145 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	12.2 gal	46 liters
		Pressure setting	570 psi	4.0 MPa (40 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
FEED	Feed mechanism		AC servo motor with rack and pinion	
	Feed stroke		78.7"	2000 mm
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	169.8" x 226.1" x 91.7"	4312 x 5742 x 2330 mm
		Head down position	169.8" x 226.1" x 91.7"	4312 x 5742 x 2330 mm
	Table height (above floor)		28.8"	730 mm
	Machine weight		15,215 lb	6900 kg

Floor Layout



See Amada Saws at Work

The AMTA Technical Center was created to provide a unique atmosphere for visitors to experience the latest manufacturing technology in action. This stunning 40,000-square-foot facility houses the latest Amada technology in each product group. Much more than just
an exhibit, every machine, automation accessory, and software program in the facility is fully operational and ready to empower customers to solve their most challenging manufacturing applications.

Specifications, appearance and dimensions are subject to change without notice at the sole discretion of Amada's Engineering Department.

There may be differences between the specifications described in this catalog and the Amada products actually shipped. Please ask our staff for more detail.

The products in the catalog may be subject to the provisions of foreign exchange and the Foreign Trade Law. When exporting cargo subject to such controls, permission pursuant to regulation is required. Please contact our business representative in advance when exporting products overseas.

When using our products, safety equipment is required depending on the operational task.

For safe and correct operation, ensure thorough reference to the Instruction Manual prior to operation.

The cutting performance data in this catalog may be affected by temperature, the cutting materials, tool materials, and cutting conditions, etc. Please note that such data are not guaranteed.

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