

AMADA MACHINERY AMERICA, INC.



THE VISION OF PRECISION

# HA Series



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# Amada Machinery America



With more than 70 years of industry experience, Amada Machinery 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.

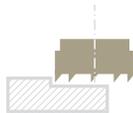
## Solutions Designed Around Customer Needs

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



GRINDING



MILLING



SAWING

# 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

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## 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

## HA250W and HA400W



### HA250W and HA400W Horizontal Automatic Metal Cutting Bandsaws

The HA250W and HA400W feature "C" section frames that carry the mountings for the two band wheels, heavy-duty worm gear drive reducer, blade drive motor, and saw guide arm mounting supports. The result is an extremely rigid structure that delivers efficiency, economy, and large-capacity cutting for all types of metals.



Full-Stroke Vises



User-Friendly Controls

MODEL	ROUND (DIAMETER)	RECTANGLE (W X H)	WORK LOAD CAPACITY
HA250W	1.18~10" (30 mm~250 mm)	11.8" x 10" (300 mm x 250 mm)	3307 lb (1500 kg)
HA400W	1.18~16.5" (30 mm~420 mm)	16.3" x 16.3" (415 mm x 415 mm)	5511 lbs (2500 kg)

## Features

**Exceptional Accuracy**—The rigid head design always ensures straight, accurate cuts in all sizes and grades of material. Indexing accuracy is  $\pm 0.004"$  (0.1 mm) per index.

**Faster Cycle Times**—The quick-approach arm maintains the minimal distance between the saw blade and the material being cut during indexing, reducing cycle times.

**Pressure/Flow Feed Control**—The independent pressure and flow controls ensure the optimum cutting rate can be obtained regardless of section or alloy being cut. The pressure control determines the cutting force applied to the blade and the flow control sets the maximum fall rate of the head. For example, for difficult-to-machine materials, the pressure is set higher than free-machining alloys and the flow is set

lower, as shown on the escutcheons above the control knobs.

**Drive Wheel Transmission**—The drive wheel transmission is designed and built by Amada to provide high-efficiency speed reduction (without requiring external cooling) to deliver more power to the large-diameter drive shaft. This shaft ensures that the torque developed is transferred to the blade with no strobing, enabling the machine to efficiently cut high alloys as well as free-machining materials.

**Drive and Driven Wheels and Drive System**—The drive and driven wheels are cast iron for long, productive life. The spindle assemblies incorporate tapered roller bearings for greater rigidity and long service life, and the drive motor is coupled to the transmission through a variable-speed pulley.

# HA250W and HA400W



Full-Stroke Vises



Powered Chip Conveyor

(3600 mm) for HA250W and 177" (4500 mm) for HA400W in automatic mode.

**Idler Wheel Motion Detector**—The wheel motion detector will turn off the blade drive in the event of a blade breaking or jamming in a workpiece. This feature also prevents premature wear on the drive wheel from a stalled blade.

**Powered Chip Conveyor**—The hydraulically powered shaftless chip conveyor provides chip removal and coolant separation. This greatly reduces cleanup time and enables the machine to run longer without operator cleanup.

**Multiple Index**—The machine control has the capability to make up to nine index passes, giving a maximum cut length of 141.7"

**Split Front Vise ( HA250W)**—The work-holding vise is split so that it clamps the workpiece on both sides of the cutting plane.

**Full-Stroke Vises**—The work-handling and index vise cylinders are both full-stroke, which eliminates the need to manually set the clamping jaw for the work-width.

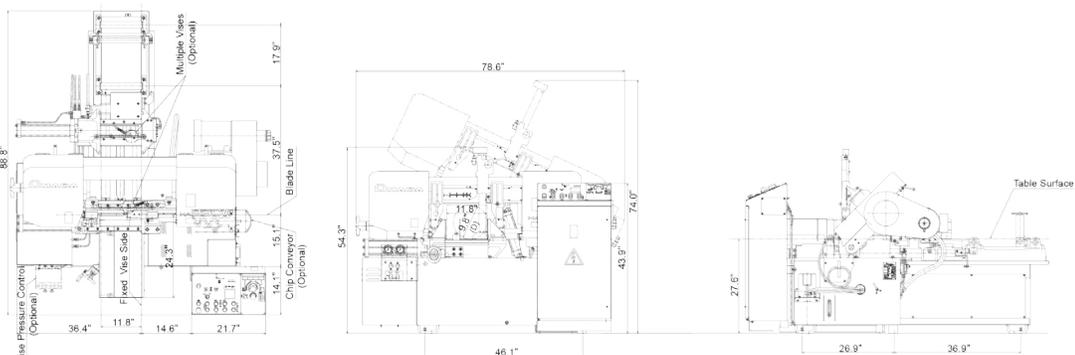
**Automatic Kerf Compensation**—The need to calculate kerf loss on multiple indexes is eliminated for quick and easy setups.

**User-Friendly Controls**—All cutting functions are controlled at one convenient location.

## HA250W Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~10"	30~250 mm	
		Rectangle (W x H)	11.8" x 10"	300 x 250 mm	
	Work load capacity		3307 lb	1500 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	11'6" x 0.042" x 1.25"	3505 x 1.1 x 34 mm	
		Blade speed	89~295 ft/min, 60 Hz stepless	27~90 m/min, 60 Hz stepless	
		Tension control	Hydraulic		
	Blade control	Top limit setting	Automatic setting with quick approach feeler		
		Cutting control	Hydraulic pressure and flow control valve		
	Vise operation	Type	Main split vise and rear vise		
	Control	Hydraulic full-stroke cylinder			
MOTORS	Saw blade motor	5 HP	3.7 kW		
	Hydraulic pump motor	1 HP	0.75 kW		
	Cutting fluid pump motor	1/4 HP	0.12 kW		
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz or AC440V ± 10%, 3 PH, 60 Hz			
	Power requirement	8 kVA			
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	22.5 gal	85 liters	
		Pump type	Electric		
	Hydraulic	Tank capacity	7.9 gal	30 liters	
		Pressure setting	384 psi	2.7 MPa (27 kgf/cm <sup>2</sup> )	
CHIP DISPOSAL	Chip conveyor				
MATERIAL INDEX	Index mechanism	Shuttle vise			
	Stroke	15.75" (maximum 9 times index)	400 mm (maximum 9 times index)		
	Length	0.394"~141.7"	10.0~3600 mm		
	Number of input stations	1			
	Number of cut-off pieces	1~9999			
	Remnant length	2.24" plus length of parts	57 mm plus length of parts		
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	76.5" x 93.1" x 69.8"	1945 x 2366 x 1772 mm	
		Head down position	76.5" x 93.1" x 50.6"	1945 x 2366 x 1285 mm	
	Table height (above floor)	27.6"			
	Machine weight	3307 lb			
	1500 kg				

## Floor Layout



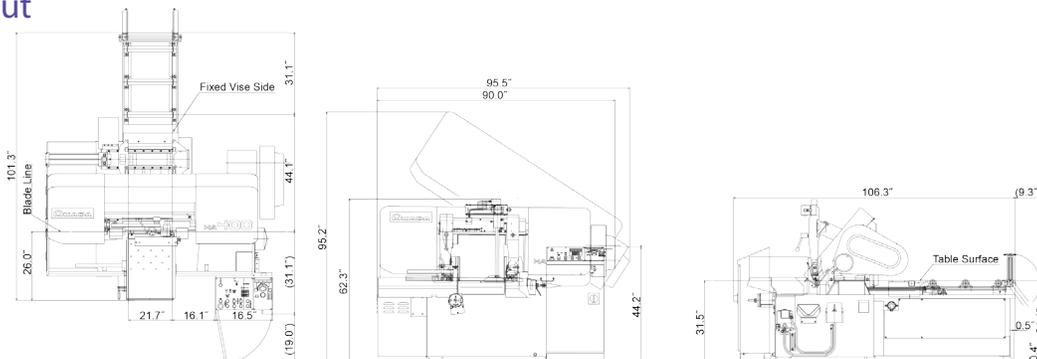
\* Specifications may change without notice at the sole discretion of Amada's Engineering Department

# HA250W and HA400W

## HA400W Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~16.54"	30~420 mm	
		Rectangle (W x H)	16.3" x 16.3"	415 x 415 mm	
	Work load capacity		5511 lb	2500 kg	
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	15' x 0.050" x 1.5"	4570 x 1.3 x 41 mm	
		Blade speed	56~295 ft/min, 60 Hz stepless	17~90 m/min, 60 Hz stepless	
		Tension control	Hydraulic		
	Blade control	Top limit setting	Automatic setting with quick approach feeler		
		Cutting control	Hydraulic pressure and flow control valve		
Vise operation	Type	Main and rear vise			
	Control	Hydraulic full-stroke cylinder			
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 or AC440V ± 10%, 3 PH, 60 Hz			
	Power requirement	11 kVA			
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	31.5 gal	120 liters	
		Pump type	Electric		
	Hydraulic	Tank capacity	10.5 gal	40 liters	
		Pressure setting	498 psi	3.5 MPa (35 kgf/cm <sup>2</sup> )	
CHIP DISPOSAL	Chip conveyor				
MATERIAL INDEX	Index mechanism	Shuttle vise			
	Stroke	19.6" (maximum 9 times index)	500 mm (maximum 9 times index)		
	Length	0.394"~177"	10.0~4500 mm		
	Number of input stations	1			
	Number of cut-off pieces	1~9999			
	Remnant length	3" plus length of parts	76 mm plus length of parts		
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	Head up position	89.5" x 106.2" x 95.5"	2274 x 2697 x 2425 mm	
		Head down position	89.5" x 106.2" x 62.0"	2274 x 2697 x 1575 mm	
	Table height (above floor)	31.5"		800 mm	
	Machine weight	4851 lb	2200 kg		

## Floor Layout



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