AMADA MACHINE TOOLS AMERICA, INC.

AHB TOOLING & MACHINERY

COMPLETE METALWORKING SOLUTIONS

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THE VISION OF PRECISION

CTB Series

AMADA®

Contents

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.

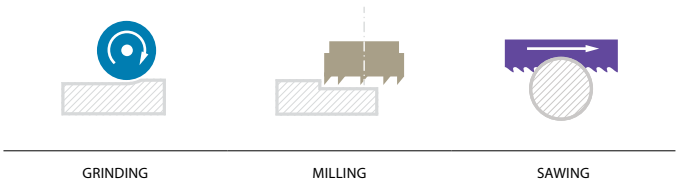
And, as technology has evolved, we've embraced CNC automation as a core strength, improving throughput and helping new operators become productive more quickly.

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

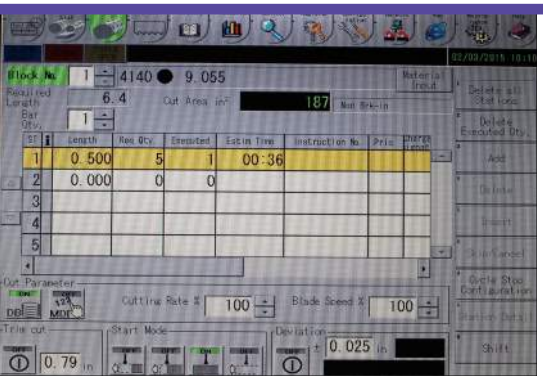
Throughout the steel processing world, the Amada name is known for quality and dependability. Our lineup of industry-leading saws brings a host of innovations designed to improve your productivity. From operator-friendly controls and intuitive CNC software to our patented pulse-cutting technology that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

CTB400 and CTB7040
CNC Programmable Automatic Metal Cutting Bandsaws, Carbide

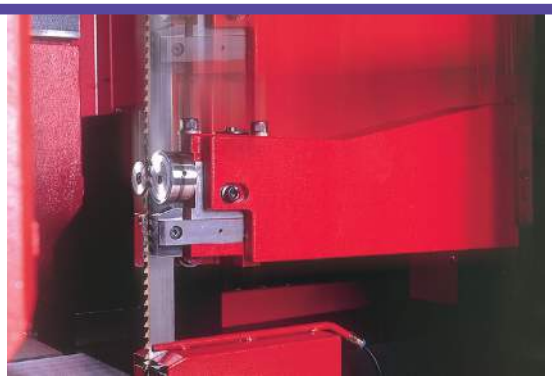
Developed for high production, accuracy, and economical cutting, the CTB400 and CTB7040 are specifically designed to use the multifaceted Amada carbide bandsaw blade.

The combination of these two saws has achieved cutting rates in excess of 14.7 in^2/min. (95cm^2/min.) and surface finishes in the range of 62 RMS, while holding accuracies well within ± Ø 0.002" (0.05 mm).

The world's first CNC optimal cutting control (patent pending) presets feeds and speeds according to material specifications. Feeds and speeds are automatically set to achieve the most economical cutting with the highest productivity possible, while maintaining noise levels below 85 decibels.



Windows®-Based CNC Controller



Automatic Guide Arm Positioning

Automatic Wire Brush

Features

Windows®-Based CNC Controller for Easy Job Setup—Feed and speed are predetermined according to the blade type and material grade. NC functions include:

- Automatic kerf compensation
- Optimized cutting efficiency
- Blade deviation monitoring
- History
- Multiple job selection
- Number of pieces required
- Number of pieces cut

Automatic Guide Arm Positioning—The guide arm automatically adjusts to maintain the maximum beam strength of the blade throughout the cut.

Automatic Wire Brush Setting (patented)—The wire brush automatically adjusts for maximum efficiency and eliminates excessive brush wear.

Chip Conveyor—The chip conveyor continuously extracts the chips to a hopper during the entire cutting operation.

Vise System—The patented vise system increases blade life while effectively controlling remnant lengths as little as 0.59" plus length of parts (15 mm plus length of parts).

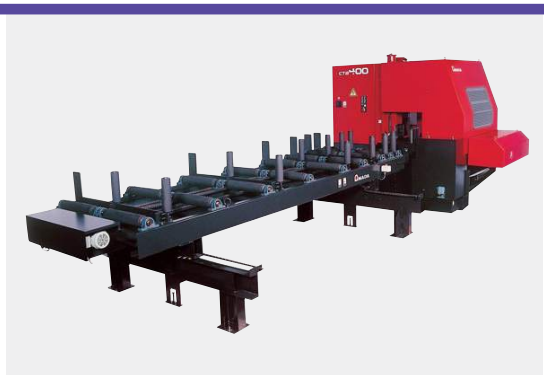
Saw Head Frame—The rigid "C" section frame carries the mountings for the two band wheels, the heavy-duty worm drive gear reducer, the band drive motor, and the saw guide arm mounting supports. The saw head is supported and guided by LM linear bearings, while the bearing rail is mounted on the head's vertical center of gravity for better stability.

Drive Wheel Transmission—The worm gear drive wheel transmission is designed and built by Amada to provide high-efficiency speed reduction—which requires no external cooling—to deliver more power to the large-diameter drive flange mounted on the drive wheel. This flange 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. The entire drive assembly, up to the wheel, is sealed against chips and cutting fluid for long, maintenance-free operation.

CNC Saw Feed Control—The CNC controller has provisions for 100 user materials. The controller automatically varies the feed rate of the saw head for materials with a changing cross section to ensure the fastest cutting time and best surface finish. Using the Amada Triple Chip carbide

CTB400 and CTB7040

Chip Collection



Auto Load Table

blade on a changing cross section provides a cutting rate that is significantly faster than conventional HSS blades with an exceptional surface finish not available with normal bandsaw blades.

Blade Deviation Monitor—The CNC controller constantly monitors the cutting and blade conditions, including the twist of the saw blade. The maximum allowable twist is specified for each direction. When either of these values exceeds the preset parameters in the automatic blade runout detector, the machine will cease cutting and indicate the reason for stopping.

Smart Multiple Index—The NC microprocessor controls the index cycle, enabling the machine to cut different lengths in sequence from the same workpiece, and provides a "Smart Multiple Index" cycle for cut lengths greater than the single index stroke of 15.7" (400 mm). The index cycle makes full-length index passes.

Multiple Index—The machine control has the capability to make more than two index passes, giving a maximum cut length of 393.70" (9999.9 mm) in automatic mode.

Split Front Vise—The work-holding vise is split so that it clamps the workpiece on both sides of the cutting plane. This additional support in front of the cutting plane minimizes the burr on the cut pieces.

Note: CTB400 does not offer the split front vise.

Standard Features

- Cutting control by hydraulic flow control valve with stepping motor
- Anti-vibration guide roller (patented)
- Cutting fluid level detector
- Automatic blade guide setting
- Automatic wire brush setting
- Blade deviation monitor
- Chip conveyor
- Front and rear vise (full stroke)
- Inverter-driven variable blade speed
- Material separation at end of cut
- Motion detector
- Windows-based CNC controls
- Preset auto trim cut
- Safety interlocks
- Auto trim cut function

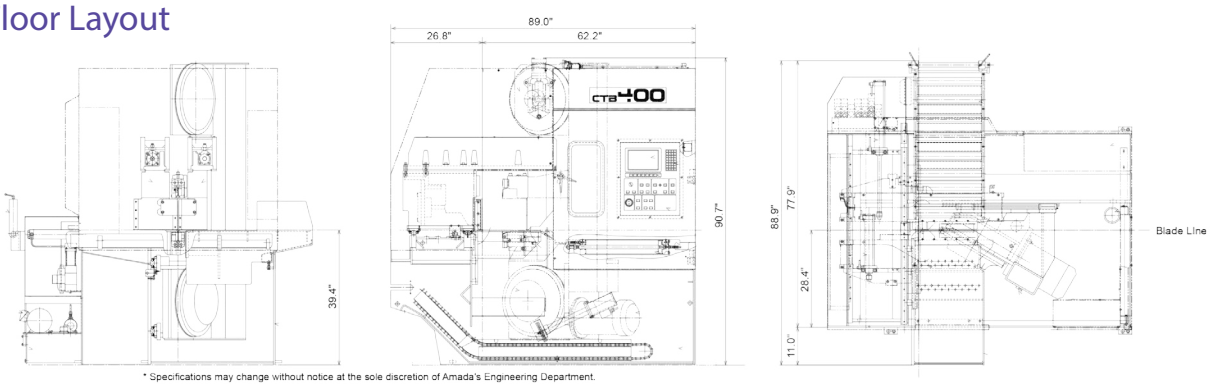
Optional Accessories

- Roller table
- Return conveyor
- Vise pressure control

CTB400 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~16"	30~430 mm
		Rectangle (W x H)	1.18" x 0.5"~16" x 16"	30 x 12~430 x 430 mm
	Work load capacity		5512 lb	2500 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	15'6" x 0.055" x 1.5"	4715 x 1.3 x 41 mm
		Blade speed	50~492 ft/min, by inverter	15~150 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	Windows CNC, hydraulic flow control valve with stepping motor	
	Vise operation	Type	Front and rear vise	
		Control	Hydraulic	
MOTORS	Saw blade motor	10 HP	7.5 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	16.6 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	60.8 gal	230 liters
		Pump type	Electric	
	Hydraulic	Tank capacity	9.2 gal	35 liters
		Pressure setting	640 psi	4.5 MPa (45 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		Front: 11.8"	Front: 300 mm
			Rear: 15.7"	Rear: 400 mm
	Length		0.394~393.70"	10~9999.9 mm
	Number of input blocks and stations		99 blocks, 99 stations per block	
	Number of cut-off pieces		1~9,999	
	Remnant length		0.59" plus length of parts	15 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	89" x 88.9" x 90.7"	2260 x 2257 x 2304 mm	
	Table height (above floor)	39.4"	1000 mm	
	Machine weight	9261 lb	4200 kg	

Floor Layout



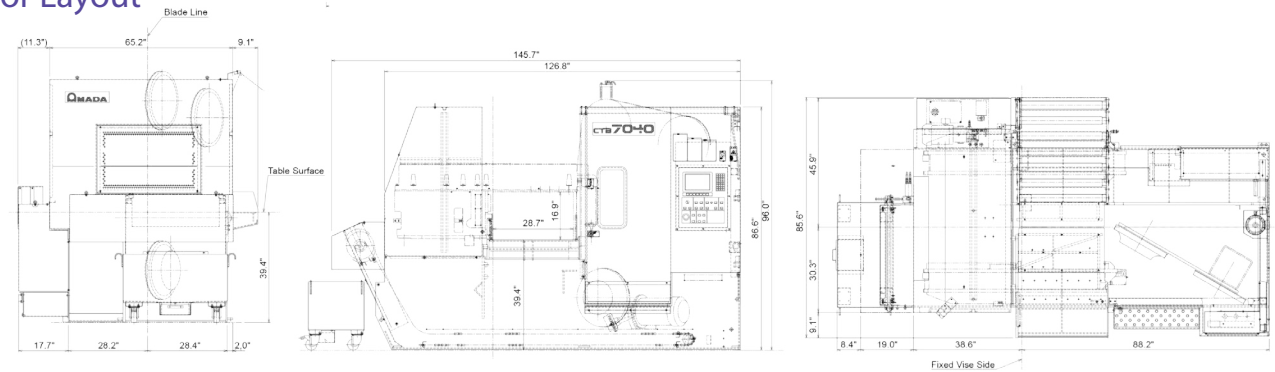
* Specifications may change without notice at the sole discretion of Amada's Engineering Department.

CTB400 and CTB7040

CTB7040 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	1.18"~16"	30~430 mm
		Rectangle (W x H)	1.18" x 1.18"~28.7" x 16"	30 x 30~730 x 430 mm
	Work load capacity		5512 lb	2500 kg
BLADE AND VISE OPERATION	Saw blade	Dimensions (L x T x W)	18'6" x 0.055" x 1.5"	5628 x 1.3 x 41 mm
		Blade speed	50~492 ft/min, by inverter	15~150 m/min, by inverter
		Tension control	Hydraulic	
	Blade control	Cutting control	CNC control, flow control valve with stepping motor	
	Vise operation	Type	Front and rear vise	
		Control	Hydraulic	
MOTORS	Saw blade motor	10 HP	7.5 kW	
	Hydraulic pump motor	2 HP	1.5 kW	
	Cutting fluid pump motor	1/4 HP	0.18 kW	
	Wire brush motor	1/8 HP	0.09 kW	
POWER REQUIREMENTS	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz (all other voltages require a transformer)		
	Power requirement	16.6 kVA		
CUTTING FLUID AND HYDRAULIC	Cutting fluid	Tank capacity	110.1 gal	417 liters
	Hydraulic	Pump type	Electric	
		Tank capacity	9.2 gal	35 liters
		Pressure setting	640 psi	4.5 MPa (45 kgf/cm^2)
CHIP DISPOSAL	Chip conveyor			
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Stroke		Front: 11.8"	Front: 300 mm
			Rear: 15.7"	Rear: 400 mm
	Length		0.394~393.70"	10~9999.9 mm
	Number of input blocks and stations		99 blocks, 99 stations per block	
	Number of cut-off pieces		1~9,999	
	Remnant length		0.59" plus length of parts	15 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)	146.1" x 85.6" x 92.1"	3713 x 2175 x 2339 mm	
	Table height (above floor)	39.4"	1000 mm	
	Machine weight	13,448 lb	6100 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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