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# Lineup of Saws

THE VISION OF PRECISION



### AMADA MACHINE TOOLS AMERICA, INC.

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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 enhancesyour workflow.

TECHNOLOGIES OF AMADA







GRINDING

MILLING

SAWING

Amada Sawing Technology 1

# 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 questions you might have. 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

### 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			
СТВ	CNC-controlled horizontal bandsaws designed for carbide-tipped blades			
DYNASAW	Dynamic, high-performance bandsaw machines			
н	Highly rigid horizontal bandsaws for a wide range of cutting tasks			
HA	Semi-automatic horizontal bandsaws			
HFA	Fully automatic horizontal bandsaws			
нк	Miter-cutting bandsaws for structural steel sections			
НКВ	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			
СМВ	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



SAWING TECHNOLOGY

# **CMB** Series

The CMB Series of circular saws is designed for high-precision cutting with short cycle times and maximum productivity. For bar stock or tubes, CMB circular saws offer the quality, features, and reliability that have made Amada an industry leader.

# CMB75CNC, CMB100CNC, CMB150CNC, CMB230 and CM400





Electric Blade Brake

Vertical Hold-Down

	CUTTING CAPABILITY	CUTTING CAPABILITY		
MODEL	ROUND (DIAMETER)	RECTANGLE (W x H)		
CMB75CNC	0.394"~3.0" (10 mm~76.3 mm)	0.394" x 0.394"~2.36" x 2.36" (10 mm x 10 mm~60 mm x 60 mm)		
CMB100CNC	0.98"~4.0" (25 mm~101.6 mm)	0.98" x 0.98"~2.95" x 2.95" (25 mm x 25 mm~75 mm x 75 mm)		
CMB150CNC	2.95"~6.0" (75 mm~152.4 mm)	2.95" x 2.95"~3.94" x 3.94" (75 mm x 75 mm~100 mm x 100 mm)		
CMB230	3.15"~9.0" (8~230 mm)	3.15" x 3.15"~6.3" x 6.3" (80 mm x 80 mm~160 mm x 160 mm)		
CM400	0.394"~2.36" (10 mm~60 mm)	NA		

### Features

### High-Speed, High-Precision Cutting—

CMB circular saws feature an oblique-slide (from the upper oblique direction) cutting mechanism. With high-precision positioning to within  $\pm$  0.0004" (0.01 mm) and a rake angle optimized for bar steel materials, fast and accurate cutting is ensured.

Unique Carbide-Tipped Tools—The saw blade is an essential component in highspeed, high-precision cutting. That's why we developed a unique carbide-tipped saw that delivers clean cuts with virtually no burrs. The CMB Series can also utilize high-speed steel blades.

### Capable of Cutting a Wide Range of

Materials—CMB circular saws can process a wide variety of steel materials, including round bars and rectangular bars in mild steel, stainless steels, tool steels, and nonferrous materials.

### Spray-Mist Lubricant Reduces Cleanup— These machines incorporate a semi-dry cutting system that generates eco-friendly

oil-mist, so workpieces get less wet when cutting and downstream processing is greatly reduced.

Clean Cut Material Faces—With the highprecision cutting these machines can deliver, the cut face on the workpiece comes out much cleaner compared to bandsaw cuts. As no cleanup work is required, your overall processing time is reduced.

Longer Circular Saw Blade Life—Using oblique-slide cutting and a cemented carbide pad (to dampen vibration), the service life of the saw blade can be greatly increased, reducing your cost per cut.

### Circular Saws for Bar Material





Hydraulic Material Clamping

User-Friendly CNC Control

High Rigidity and Stability—The highly rigid machine frame reliably supports high-speed operation while the cutting and material feed sections of the machine incorporate AC servo motors and ball screws to ensure stability in high-precision cutting.

High-Precision Auto-Sizing Device—Using a photoelectric switch to detect the leading edge of the workpiece, the auto-sizing device incorporates a gripper that grips the workpiece from the right and left sides, correctly positions the workpiece, and feeds it with high precision.

Cut-In Control by CNC—The input section includes an easy-to-read LCD touch panel with an intuitive layout, allowing the operator to generate machining data, register auto operation programs, and operate the saw.

Power Clutch System—This unique clutch system absorbs backlash on the drive gearing, ensuring the saw blade is correctly positioned at the beginning of the cut and providing a clean and smooth cut face. High-Speed Gripper—To help reduce total machining time, we incorporated a high-speed gripper and high-speed vises in the cutting area. The gripper is equipped with a retraction function to avoid scratching of the workpieces.

Delivery Chute—The severed leading edges of workpieces are automatically directed to a scrap box. After the cutting of products has begun, the delivery chute automatically shifts its position, and the products are stowed in a product box.

45-Degree Oblique-Slide System (Down Cut)—The position of the saw head shortens

# cutting distance and lead times.

### **Standard Accessories**

Automatic Loader—The automatic loader allows for continuous, unattended operation at the maximum working speed of the saw.

High-Capacity Loading Table—The loading table of the CMB75CNC, for example, can handle a total of ten 3" round steel bar workpieces (maximum of two tons) at once.

# CMB75CNC



# CMB75CNC

CMB75CNC Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	0.394"~3.0"	10~76.3 mm
		Rectangle (W x H)	0.394" x 0.394"~2.36" x 2.36"	10 x 10~60 x 60 mm
	Maximum stock table loading capacity, round bars (L x D)		19.6' x 3" x 10 bars or 4761 lb*	6000 x 76.3 mm x 10 bars or 2160 kg*
	Incline table dimensions (L x W x H)		17.8' x 49.6" x 45.2"	5447 x 1260 x 1148 mm
		Blade speed	56~197 rpm, by inverter	
	Saw blade	Number of teeth	60 or 80	
BLADE AND SAW HEAD		OD x bore x T	11.2" x 1.57" x 0.08"	285 x 40 x 2.0 mm
	Saw head	Feed drive	Hydraulic cylinder	
	Saw blade motor	10 HP	7.5 kW	
MOTORS	Hydraulic pump motor	2 HP	1.5 kW	
	Cut-to-length feed motor	1 HP, servo motor	0.8 kW, servo motor	
	Power supply voltage AC220 ± 10%, 3 PH, 60		Hz (all other voltages require transformer)	
POWER REQUIREMENTS	Power requirement	29.1 kVA		
HYDRAULIC	Tank capacity	5.3 gal	20 liters	
	Index mechanism		Shuttle vise	
	Material index		AC servo motor and ball screw	
	Stroke		28.1"	715 mm
MATERIAL INDEX	Length		0.394"~472.44" (multiple indexing)	10~12,000 mm (multiple indexing)
	End trimming length		0.394"~1.57"	10~40 mm
	Remnant length		0.98" plus index length	25 mm plus index length
DIMENSIONS	Machine dimensions (W x L x H)		65.6" x 82.7" x 62.3"	1667 x 2100 x 1582 mm
AND WEIGHT	Machine weight		4409 lb	2000 kg

\* Evenly distributed over entire table.



# CMB100CNC



# CMB100CNC

### Round (diameter) 0.98"~4.0" 25~101.6 mm Cutting capacity Rectangle (W x H) 0.98" x 0.98"~2.95" x 2.95" 25 x 25~75 x 75 mm CAPACITY 6000 x 101.6 mm x 6 bars Maximum stock table loading capacity, 19.6' x 4.0" x 6 bars or 5070 lb\* or 2300 kg\* round bars (Lx D) Incline table dimensions (L x W x H) 17.6' x 45.7 x 44.3" 5367 x 1160 x 1124 mm Blade speed 53~208 rpm, by inverter Saw blade Number of teeth 60, 80 or 100 BLADE AND SAW HEAD OD x bore x T 14.1" x 1.57" x 0.10" 360 x 40 x 2.6 mm Saw head Feed drive AC servo motor with ball screw Saw blade motor 15 HP 11 kW MOTORS 2 HP 1.5 kW Hydraulic pump motor Cut-to-length feed motor 1 HP, servo motor 0.8 kW, servo motor Power supply voltage AC220 ± 10%, 3 PH, 60 Hz (all other voltages require transformer) POWER REQUIREMENTS Power requirement 32.9 kVA HYDRAULIC Tank capacity 5.3 gal 20 liters Index mechanism Shuttle vise Material index AC servo motor and ball screw Stroke 28.1" 715 mm MATERIAL INDEX 0.394"~472.44" 10~12,000 mm Length (multiple indexing) (multiple indexing) End trimming length 0.394"~1.57" 10~40 mm **Remnant length** 1.18" plus index length 30 mm plus index length Machine dimensions (W x L x H) 73.1" x 82.7" x 70.6" 1857 x 2100 x 1792 mm DIMENSIONS AND WEIGHT Machine weight 5291 lb 2400 kg

### **CMB100CNC** Machine Specifications

\*Evenly distributed over entire table.

### **Floor Layout**



# CMB150CNC



# CMB150CNC

# CMB150CNC Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	2.95"~6.0"	75~152.4 mm	
		Rectangle (W x H)	2.95" x 2.95"~3.94" x 3.94"	75 x 75~100 x 100 mm	
	Maximum stock table loading capacity, round bars (L x D)		19.7' x 6.0" x 3 bars or 5732 lb*	6000 x 152.4 mm x 3 bars or 2600 kg*	
	Incline table dimensions (L x W x H)		17.8' x 46.9" x 44.0"	5431 x 1190 x 1117 mm	
		Blade speed	39~149 rpm, by inverter		
	Saw blade	Number of teeth	40 or 60		
BLADE AND SAW HEAD		OD x bore x T	18.1" x 1.97" x 0.11"	460 x 50 x 2.7 mm	
	Saw head	Feed drive	AC servo motor with ball screw		
	Saw blade motor	15 HP	11 kW		
MOTORS	Hydraulic pump motor	2 HP	1.5 kW		
	Cut-to-length feed motor	3/4 HP, servo motor	0.5 kW, servo motor		
	Power supply voltage AC220 ± 10%, 3 PH, 60 Hz		(all other voltages require transformer)		
	Power requirement	32.5 kVA			
HYDRAULIC	Tank capacity	5.3 gal	20 liters		
	Index mechanism		Shuttle vise		
	Material index		AC servo motor and ball screw		
	Stroke		29.7"	755 mm	
MATERIAL INDEX	Length		0.78"~472.44" (multiple indexing)	20~12,000 mm (multiple indexing)	
	End trimming length		0.78"~1.57"	20~40 mm	
	Remnant length		1.77" plus index length	45 mm plus index length	
DIMENSIONS	Machine dimensions (W x L x H)		85.1" x 77.4" x 74.1"	2160 x 1967 x 1882 mm	
AND WEIGHT	Machine weight		7275 lb	3300 kg	

\*Evenly distributed over entire table.

### Floor Layout



# CMB230



# CMB230

## CMB230 Machine Specifications

CAPACITY	Cutting capacity	Round (diameter)	3.15"~9.0"	80~230 mm
		Rectangle (W x H)	3.15" x 3.15"~6.3" x 6.3"	80 x 80~160 x 160 mm
	Table height		37.4"	950 mm
		Blade speed	25~100 rpm, by inverter	
	Saw blade	Number of teeth	50, 60, or 80	
BLADE AND SAW HEAD		OD x bore x T	29.5" x 3.15" x 0.15"	750 x 80 x 3.8 mm
	Saw head	Feed drive	AC servo motor	
	Saw blade motor	50 HP	37 kW	
MOTOR	Hydraulic pump motor	5 HP	3.7 kW	
MOTORS	Sawhead feed motor	9.4 HP, servo motor	7 kW, servo	
	Bar feed motor	4.7 HP, servo	3.5 kW, servo	
	Wire brush motor	0.08 HP, servo	0.06 kW, servo	
	Power supply voltage	AC220 ± 10%, 3 PH, 60 Hz	(all other voltages require transform	ner)
POWER REQUIREMENTS	Power requirement	60 kVA		
HYDRAULIC	Tank capacity	10.5 gal	40 liters	
	Feeding vise stroke length		19.69"	500 mm
	Minimum cut-off length		0.78"	20 mm
	Minimum remnant length		5.7" plus length of parts	145 mm plus length of parts
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H	)	85.1" x 77.4" x 74.1"	2160 x 1967 x 1882 mm
	Machine weight		18,739 lb	8500 kg
	Loader weight		12,125 lb	5500 kg

\*Evenly distributed over entire table.

## Floor Layout





# CM400

# CM400 Machine Specifications

CAPACITY	Cutting capacity	Bars (diameter)	0.394"~2.36"	10~60 mm
		Tubes (diameter)	0.394"~3.54"	10~90 mm
	Maximum stock table loading capacity (L x D)		20' x 2.4" round bars 20' x 3.5" tubes or 4410 lb*	6000 x 60 mm 6000 x 90 mm or 2000 kg*
	Incline table dimensions (L x W)		78.74"~236.22" (L) x 39.37" (W)	2000~6000 mm (L) x 1000 mm (W)
	Saw blade	Blade speed	14, 18, 25, 32 rpm	
		Number of teeth	70~220	
BLADE AND SAW HEAD		OD x bore x T	11"~12.4" x 1.26" x 0.10"~0.12"	280~315 x 32 x 2.5~3 mm
	Saw head	Feed drive	Hydraulic cylinder	
	Saw blade motor	3 HP	2.2 kW	
MOTORS	Hydraulic pump motor	3 HP	2.2 kW	
MOTORS	Cut-to-length feed motor	1/4 HP	0.18 kW	
	Work feed roller motor	0.42 HP	0.4 kW	
	Power supply voltage	AC220 ± 10%, 3 PH, 60 H	z (all other voltages require trans	sformer)
POWER REQUIREMENTS	Power requirement	9 kVA		
HYDRAULIC	Tank capacity	15.9 gal	60 liters	
MATERIAL INDEX	Index mechanism		Shuttle vise	
	Length		0.20"~15.75"	5~400 mm
	End trimming length		0.394"	10 mm
	Remnant length		0.394" plus cut-off length	10 mm plus cut-off length
DIMENSIONS AND WEIGHT	Machine dimensions (W x L x H)		61.1" x 253.3" x 58.5"	1522 x 6435 x 1486 mm
	Machine weight		3308 lb (machine unit) 662 lb (work feeding unit)	1500 kg (machine unit) 300 kg (work feeding unit)

\*Evenly distributed over entire table.

# CMB400

# 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-squarefoot 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.

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.

Specifications, appearance and dimensions are subject to 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.

### AMADA MACHINE TOOLS AMERICA, INC.

### www.amadamt.com

### MAIN OFFICE

2324 Palmer Drive Schaumburg, IL 60173 tel (847) 285–4800 fax (847) 519–2127

### BANDSAW AND BLADE BUSINESS

bandsaws@amadamt.com bladeorders@amadamt.com bandsawparts@amadamt.com bandsawservice@amadamt.com 7025 Firestone Blvd

BRANCH OFFICE

Buena Park, CA 90621 tel (714) 739–2111

### GRINDER BUSINESS

grinders@amadamt.com grinderparts@amadamt.com grinderservice@amadamt.com